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# MINNESOTA MEDICINE

*Journal of the Minnesota State Medical Association, Southern Minnesota Medical Association  
Northern Minnesota Medical Association and Minneapolis Surgical Society*

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# MINNESOTA MEDICINE

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VOL. VIII

JULY, 1925

No. 7

## PERIODIC MEDICAL EXAMINATIONS\*

FRANK BILLINGS, M.D.  
*Chicago*

Modern medicine is characterized by definite knowledge of means and measures of successful disease prevention and of specific curative treatment of many of the infectious diseases of man and animals. Mankind now enjoys better prospects of continued health and a much longer span of life because of the practical application of these discoveries.

The acute infectious diseases of the respiratory tract continue to be a menace to health and life; but we may confidently hope that laboratory and clinical research may find, soon, definite means and measures of their prevention and specific treatment.

But while these accomplishments of modern medicine in the prevention and specific treatment of some of the infectious diseases are notably gratifying, our attention and interest are attracted to the steadily increasing annual mortality from cancer and other malignant tumors, heart disease and acute and especially chronic nephritis.

In 1921† the deaths from cancer and other malignant tumors, in the registration area of the United States, were 76,274, or 86 per 100,000 of the population; from heart disease 139,264, or 157.1 per 100,000; for acute and chronic nephritis 75,696 (acute 5,741, chronic 69,955), or 85.4 per 100,000; cerebral hemorrhage and softening (which may occur as a consequence of chronic nephritis) 74,111. For the entire continental and insular territory of the United States, 25 per cent may be added to make up for the deaths in the nonregistration area.

During 1925 the people of Minnesota and of the entire United States must face the fact that of each

100,000 of the population from 86 to 100 or more will die of cancer; 157 to 200 will die of heart disease; 85 to 100 or more will die of nephritis. Now with rational and feasible measures of procedure, these mortal diseases can be prevented in some people and if already existent and incipient may be eradicated or so modified as to greatly prolong life. In this connection it suffices to call attention to pulmonary tuberculosis. In 1921 the mortality from tuberculosis of the respiratory tract, in the registration area, was 76,298, a decrease of approximately 50 per cent of the annual deaths within twenty years. This result has been due to a consistent constant antituberculosis campaign characterized by rational individual hygiene and splendid medical management.

During the World War the draft boards and the medical officers of the cantonments rejected approximately 35 per cent (or 2,000,000) of the young men from twenty-one to thirty years of age who were registered for the draft because of physical or mental unfitness for military service. It was recognized that many of these young men had defects which were remediable; that with proper advice many defects would have been prevented; that early recognition would have made medical treatment much more simple and successful.

In keeping with these large figures, one may cite this fact: in 1923 of 500 high school boys of Chicago who were candidates for military training in the R. O. T. C., 34 per cent were rejected for defects, which in most instances had not been recognized.

With these preliminary statements of conditions which demand action of the medical profession, we must confess that as physicians and surgeons we have been slow to act in any well thought out plan to correct or greatly modify these abnormalities which have far-reaching influence on the economic status and the happiness and lives of a multitude of people.

Until now the chief work in the attempt to recognize and if possible remove or correct physical de-

\*Read before the annual session of the Minnesota State Medical Association at Minneapolis, April 27-29, 1925.

†Report of the Bureau of the Census, Mortality Statistics for 1921. Issued by the Department of Commerce of the U. S., 1924.

fects has been done for infants, school children, policyholders in the large national insurance companies, employees of some of the transportation companies and some other industries by state and municipal health departments, medico-social agencies, lay commercial organizations who employ doctors to do the work and the medical employees of the industries. Now as an organized body the medical profession has just begun to awaken to an appreciation of its responsibility in this subject. We do acknowledge that it is our job; that we can no longer neglect it. Two years ago on the recommendation of the Council on Health and Public Instruction, the House of Delegates adopted a resolution to the effect that periodic health examinations are essential to chronic disease prevention and advised that the county societies organize to carry on this work primarily through the general practitioners who can encourage and secure the examination of members of the families for whom they are responsible.

Through the Council and later by the Bureau on Health and Public Instruction, periodic health examinations have been encouraged by making available to county societies and individual physicians printed forms for making records of physical examinations, pamphlets and recently a small book describing how to make the examinations. Articles have been published in *Hygeia* and in the official Bulletin and lectures, correspondence and other means have been used to further the project. The most striking and practical experiment in promoting periodic medical examinations by its members has been made by the Kings County Medical Society of Brooklyn, N. Y. More than a year ago special meetings were held for a period, at which the subject was discussed and ways and means formulated to carry the work on. At these special meetings the members examined other members and made records. This procedure served to arouse interest in the subject inasmuch as the methods pursued were instructive to those members of the society who needed it; and finally heretofore undetected defects were found in some individuals who deemed themselves entirely well.

In Maine the secretary of the State Medical Association has organized the county medical societies to work co-operatively with the state health department, the local health organizations, the antituberculosis society and various lay welfare units in

general disease prevention measures, including periodic medical examinations. Other state associations and some county societies have taken up the subject, but no uniform plan for carrying on the work has been considered by an authoritative body under the jurisdiction of organized medicine.

Surely the subject is of great importance to the public from the point of view of health, life, and economic and productive efficiency; it is just as important to the members of the medical profession whose obligation it is, if possible, to keep people from illness and injury and if possible to restore lost health as certainly and as promptly as conditions permit.

The job belongs to the members of the medical profession. It will not be an easy one. The best means and measures to do the work efficiently may not be applicable to all communities. It will be a never ending job, with new individuals coming into the field year after year. The periods between examination of individuals may vary from six months to a year or even two years. The first examination of an individual will be the important one for him and the physician, too, for the result, if satisfactory, will be likely to make him a promoter of periodic medical examination with his friends and neighbors; or, if unsatisfactory to him, may make him an obstacle to the success of the program in that local community.

To make the job successful all classes of the people must be considered—the well-to-do, those of moderate means, and the poor—even the indigent should have the benefit of such examinations. The problem will be less difficult of solution with that class of the public who can pay for any service rendered, but for the poor and indigent, the county or district society may assume leadership in devising ways and means, with public aid if possible, such as the establishment of ambulatory clinics where the indigent can be examined by individual physicians or by groups of doctors, when that method is necessary. Inasmuch as approximately 40 per cent of the sick people are unable to pay professional fees, it will lessen this obligation assumed by the medical profession if by our efforts we can keep them well.

Inasmuch as this is our job, it is the opinion of the writer that the most feasible method of carrying on this work is this:

The state society through the officers and district counsellors should adopt standard, yet simple available means of physical examination; adopt a printed form\* for recording the results of the examination, in duplicate; this will afford one copy for the individual examined and one for the files of the physician; no copy should be placed in a public file and thus violate the important confidential relations of the physician and the individual.

Special meetings of county or of district societies should be devoted to a discussion of periodic medical examinations. The councillor of the district probably can give aid and advice to the officers of the county societies in his district. The Kings County Medical Society plan of learning the new things to be done in this work by examining fellow members and being examined by them, is a practical and rational way to begin.

The county society as such can inform the families of the territory through the mail by means of well thought out literature setting forth the benefits of periodic medical examination for the apparently healthy. With this literature may be included the advice to consult the family physician, who as a member of the county society presumably has consented to do the work, including the record making, to the best of his ability.

Right here one must emphasize the importance of accepting and doing the job seriously and well. Complaints from people have come to the writer's attention, that doctors to whom they have gone for such an examination have made a joke of the affair, turning away people with a remark, "I cannot waste time to look you over. I know you are sound as a dollar," or some equally discouraging statement.

Some practitioners may find embarrassment in making these examinations. The writer takes the view that every conscientious physician who is licensed to practice medicine is quite as competent to examine, decide the health status and give proper advice for maintaining health of the apparently well as he is to examine, diagnose and treat the ill and injured.

If the physician gives sincere service to the job and makes a written record, he will be apt to dis-

cover possible mistakes in subsequent periodical recorded examinations of the same individual. With many physicians this sort of work will stimulate study of books and laboratory and clinical methods of diagnosis.

The physician who finds puzzling conditions in his examination will request the individual for professional aid through a consultant, as would be done with a patient with obscure conditions.

The financial remuneration of the family physician or general practitioner should be the same as for a thorough examination of a patient; likewise the fee of the consultant.

In this work as with attendance upon the sick, just and equitable fees should be requested for the service; but the conscientious physician will never demand a fee which will cause financial embarrassment by its payment.

Enough has been said of the examination of the indigent poor of the community. The well-to-do may seek examination from a diagnostic clinic or a private clinical group, which is a right not to be denied. But the writer hopes that the major portion of this work will finally be done efficiently done by the general practitioner, who is or should be the family physician.

The writer recognizes that the program suggested is easily conceived and described; that its successful application will require unselfish leadership of members of the medical profession in every community; repeated special society meetings devoted to discussions of the subject; great patience and tact of leaders and men in the ranks; and individual and group tolerance and broadminded professional co-operation.

This or some other similar plan must be employed in the work for it is the job of the general practitioner aided, when necessary, by specialists and consultants. It is impracticable to suggest that a major portion of the work may be done by hospital, ambulatory or private clinical groups. Nor can it be efficiently done or at all done by lay organizations with a salaried medical personnel.

The success of this or any other adopted plan will require the moral support of a united profession and the active sincere work of the individual family physician, who must be the chief factor in the work.

\*Printed forms for making records can be obtained from the Bureau on Health and Public Instruction at A. M. A. headquarters.

# THE STATE SOCIETY: PRESIDENT'S ADDRESS\*

W. L. BURNAP, M.D.  
Fergus Falls, Minn.

A fond mother, when shown the photograph of her daughter, complained that it did not do her justice. Whereupon the photographer replied, "Dear madam, what your daughter requires is not justice but mercy!"

The medical profession today, in viewing itself, frequently sees only through the eyes of the mother; while the public view is that of a merciless camera. We see ourselves as broad-shouldered, full-chested guardians of the public health, while the camera shows this broad chest is but a prominent abdomen, the result of prosperity built upon the public misfortunes. It fails to record the great intellectuality, high ideals, and personal charms which we so well know we possess; but rather emphasizes a marked convergent squint. The one eye with which we view the public is amblyopic, while the other, though functioning, gives a distorted image of our fellow practitioners. It shows us to be a trust, self-satisfied, still individually slow to recognize merit in members of our own profession.

We see ourselves as very scientific, we just love to be scientific. The public camera shows us ultra-scientific; so much so that people are at times in doubt, after consulting a physician, whether they have been to a doctor's office or through a Ford factory. Can we wonder that they occasionally resurrect the photograph of the old family doctor, and, as they gaze into his kind, care-worn face, this old verse runs through their minds?

"He walked with modest mien and kindly eye  
Along the street, and few would ever guess  
That, 'mid the hurrying throngs that surged and  
pressed,

A master soul had passed them gently by.  
His smile was such that little children hied  
To bask them in its genial wholesomeness;  
And when he spoke, his words of cheeriness  
Shed welcome sunshine like a spring noon sky.  
A simple man, yet none in all the land

More great. For he was ever found apart  
Where beds of human suffering grimly stand;  
And there, with soul alert, he lived his art—  
The tender gift of healing in his hand,  
And God's sweet law of service in his heart."

Possibly, if we develop a more sympathetic attitude toward the public, the old photograph will be forgotten and be replaced by that of a younger and more handsome man, whose every expression speaks sympathy and whose every word and act denotes skill and knowledge.

Malpractice suits are tremendously on the increase, in Minnesota nearly 300 per cent since 1918. Many insurance companies increased their rates, but, still losing heavily, withdrew; others are making up losses here from profits elsewhere. Every doctor should carry insurance with an indemnity clause, not alone for his own protection, but for the protection of his patient. A person employing a doctor has a right to average good services; and a doctor, in taking a case, agrees to furnish such. One who renders less breaks his contract, cheating the patient, who may, in that event, be entitled to compensation.

The profession must learn that the respect and confidence of the public will not be ours as long as we give perjured testimony. It is a shock to our pride when we realize that our most revered Dean Ritchie was forced to say that there are three degrees of liars: the ordinary liar, the damn liar, and the medical expert.

We also suffer in the eyes of the public because our virtues are too little known. The result of medical ethics frequently has been to emphasize our failings and obscure our virtues. In some way we must let our light so shine before men that they may see our good works and glorify the profession.

The State Medical Association has taken a few steps in this direction:

1. The Hennepin, Ramsey, and Olmsted County Societies, on their own initiative and expense, have once a week for the past four months broadcast radio talks on important medical and health subjects. They have been announced as coming from the Minnesota State Medical Association, with the county society responsible. Just how widespread the public interest has been it is difficult to say, but there is no doubt that the idea

\*Delivered at the annual banquet of the Minnesota State Medical Association, April 28, 1925, at the Radisson Hotel, Minneapolis.

is good, and in time we will learn just how to catch the public ear. On behalf of the State Association, I wish to thank the societies for this progressive step.

2. The Committee on Hospitals and Medical Education, in conjunction with the Extension Division of the University, has prepared an extension course which will begin June first. Two medical authorities will be sent out once a week into two contiguous small centers, devoting one day to each, giving lectures and holding clinics. A sufficient fee will be charged to cover expenses.

The value of this to the physicians attending is too evident to require comment, giving as it does the maximum instruction at minimum investment of time and money. One benefit, however, which is not immediately manifest, is the favorable reaction on the part of the public. To have it generally known throughout the communities that the best authorities are giving these courses must increase public respect for the profession and develop interest in the subjects considered.

This committee, and the ones which have gone before, have the gratitude of the association for the large amount of time and thought devoted to arranging this, the first course of the kind ever offered in the west. We commend the wise choice of subjects and the men selected to present them.

3. The great forward step of recent times is the newly created friendship between the profession and the legislature. This new spirit far transcends the important legislation which has been granted us. We will be strangely lacking in gratitude and loyalty if we forget our obligations to these senators and representatives at the next election, when, of all times, friends are most appreciated.

Great credit is due Dr. Herman Johnson, the Dawes of the medical profession, who left his large and lucrative practice, took up his residence in the St. Francis Hotel, St. Paul, and devoted his keen intelligence and boundless energy to this legislative task twenty-four hours a day for over four months. I have heard you singing his praises far and near, and all these songs are sweet in my ear, because the volume is such that it has raised me with Herman, out of the ordinary, to the exalted heights of the famous. My claim to greatness is firmly based upon the fact that some one or other once remarked, "It requires as much ability to

select the right man to perform a task as to accomplish it oneself."

We must heed the advice of Dr. Herman Johnson, who insists that we enter politics in a determined and intelligent way, recognizing the fact that, as tax-payers and influential citizens, we should stand on our own feet, not using other organizations as a screen. He has shown the legislature willing and anxious to do right, when shown the justice of a request. In order to give them information, a lobby must be maintained during the legislative session; this to be under Herman, as long as he can be induced to carry the burden.

Every medical man in Minnesota can have a part by contributing liberally toward the necessarily large expense. The question sometimes asked, "What can or what does the association do for me?" has been answered for many years to come. The important question now is, "What are you doing or going to do for the association?"

An organization as large and important as the Minnesota State Medical Association requires a manager who can devote to it his best thought and effort. A full time secretary serving year after year best fills the need. He should be able to join the traditions of the past with the hopes of the future in such a way that our progress will be ever forward and upward. The value of Dr. E. A. Meyerding's services are becoming evident on all sides. Though he has held office but a few short months, he is developing the organization already established and is getting results.

The association should maintain an office with modest but comfortable furnishings. At present we occupy a portion of a small room controlled by another organization. Here we have a typewriter and a desk. The typewriter is borrowed and the desk is not ours. If we had adequate headquarters, the officers, councilors, and committees could meet there, where records would be available. Not only this, but members, when in the Twin Cities, could make it their headquarters, if they wished; or phone in their city addresses; thus many pleasant and unexpected meetings might result.

"MINNESOTA MEDICINE" is one of the best state medical journals in the United States. No small credit is due the Editing and Publishing Committee, especially for their wise choice of the editor, C. B. Drake, whose modesty is only exceeded by

his accomplishments, and of the publisher, J. R. Bruce, ably assisted by Miss Olive Seibert, who succeeds in publishing this fine magazine at moderate expense.

We are proud of the Medical Department of the University; its long record of high standards and thorough instruction in the under-graduate school. We are especially proud that, through the Mayo Foundation, it offers opportunities for post-graduate study not equalled anywhere else in the world. This is our Medical School and, as its guardians, our criticism should always be constructive. As a unit, we should support it in its expansion, helping in every honorable way to secure the generous gift offered by the "General Educational Board."

The Ladies' Auxiliary has organized with a real purpose; we all take notice when our wives resolve. The fear has been dissipated that participation in business and political affairs will ruin woman as a clinging vine. She still clings, but with a firmer, more purposeful grip, so that now, not infrequently, we observe the interesting spectacle of a vine standing firmly erect, balancing a tottering tree. We therefore welcome their growing interest and solicit their support.

Our shortcomings are more glaring because of many high qualities. For the physician's occupation is the world's greatest profession: great in the number of persons devoting their lives to it; great in intellectual attainments and high character; great in the priceless knowledge, skill, and services rendered; great in diligence and progress in acquiring new knowledge; great in the supremacy attained over destructive diseases; and great in the power to insure health and happiness to all mankind.

The medical profession is one with high ideals; and if services rendered be the measure of success, it stands pre-eminent. We serve the young and the old, the weak and the strong, the success and the failure. We greet man as he enters the world, and ease his passing from it. We see the great souls of the humble, and the smallness of those who have been exalted. Finally, we view the anguish and remorse when it is realized that life's course has indeed been run, and life's failures stand illumined.

So it behooves us frequently to survey ourselves that we may learn wherein we fail in our responsibilities.

## A NEW ANTIPNEUMOCOCCUS SERUM\*

PRELIMINARY REPORT OF ITS EFFECT UPON THE COURSE OF PNEUMOCOCCUS PNEUMONIA

W. P. LARSON, M.D., and GEORGE FAHR, M.D.  
Minneapolis

Larson and Nelson<sup>1</sup> have shown that rabbits may be immunized against pneumococci treated with sodium ricinoleate and that the serum of such rabbits protects normal rabbits against intraperitoneal and intravenous pneumococcal infections. On the basis of this work a series of investigations of pneumonia in monkeys treated with this serum and a series of clinical studies on patients with pneumococcus pneumonias treated with this serum were planned. This is a preliminary report upon the course of pneumococcal pneumonias treated with this serum during a recent epidemic at the Minneapolis General Hospital. Future publications will deal with a more extensive series of human cases, with the investigation of this treatment of pneumonia in monkeys and the preparation of the serum.

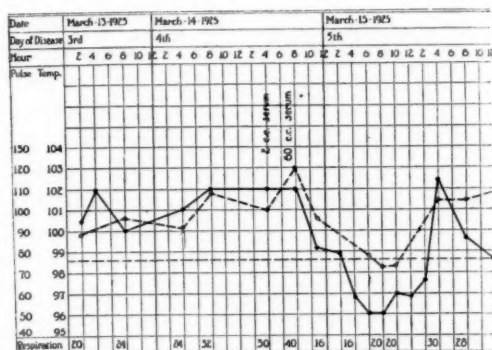


Figure 1

Eight patients with lobar pneumonia were treated with the serum but only seven will be reported upon. The sputum of these seven cases when injected into white mice gave cultures of pneumococci. The sputum of the other case, when injected into white mice, did not kill them and a sure diagnosis of pneumococcus pneumonia was not made in this case. This case followed normal delivery so that it may be doubted whether pneumococci were the etiologic agent.

\*From the University of Minnesota and The Minneapolis General Hospital.

Case No. 1987 entered the General Hospital March 13, 1925, with a history of a sudden onset of severe chill March 11, 1925, followed by a sharp pain "like a knife stuck into left side." Weakness and dry cough developed in a few hours and within twenty-four hours after onset the patient brought up rusty sputum. A few hours after the chill the temperature was  $101^{\circ}$  by mouth. Dyspnea became very severe on the second day after the onset and the patient was brought to hospital forty-eight hours after the onset of the chill. Physical examination and x-ray examination (bedside plate) at time of entrance showed consolidation of the left lower lobe. The patient had all the appearance of a very sick man. Blood pressure on the first day in the hospital was 90/60. The sputum showed pneumococci. Seventy-two hours after the initial chill the patient was desensitized by subcutaneous injection of 2 c.c. of the serum and seventy-six hours after onset 60 c.c. of serum were injected intravenously. One hour after the injection the patient had a chill which lasted fifteen minutes. Two hours after injection, the patient began to sweat profusely. Three and one-half hours after injection the temperature and respirations were practically normal. The patient appeared quite different; the flush and cyanosis had gone and the patient said he felt fine. Twelve hours after injection the temperature was subnormal and the patient was feeling very well. Eighteen hours after injection the temperature began to

given a desensitizing dose of serum. Physical examination at this time revealed dullness over the right upper, middle and upper part of right lower lobe. X-ray showed consolidation of the right lung. Over this area were faint distant breathing with lengthened expiratory breath sounds in some places, bronchial breath sounds in other parts of this dull area. Crepitant râles were heard in the axilla, and over the upper part of the lower lobe on the right. Sputum showed pneumococci and killed a white mouse from which a pneumococcus was cultured. At 9 p. m., 70 c.c. of the antipneumococcal serum were given intravenously, just seventy-four hours after onset of the initial chill. At this time the leukocyte count was 38,000; temperature was  $104^{\circ}$ ; and the patient was having great difficulty in breathing. He was bringing up typical lobar pneumonia sputum and was cyanotic at this time. At 10 p. m., the patient began to perspire profusely and at 12 p. m., three hours after the injection, the temperature was down to  $99^{\circ}$ . At 9 a. m., April 7th, the patient no longer looked very sick; the cyanosis had disappeared and he said he felt fine. At 6 p. m. the interne was called and said that patient was cyanotic, looked badly and his temperature was up to  $102^{\circ}$ . At 7 p. m., 100 c.c. of the serum were injected intravenously. One hour later the patient had a chill lasting ten minutes. At 11 p. m., the patient was perspiring profusely and looking very much better. At 12 p. m. the tempera-

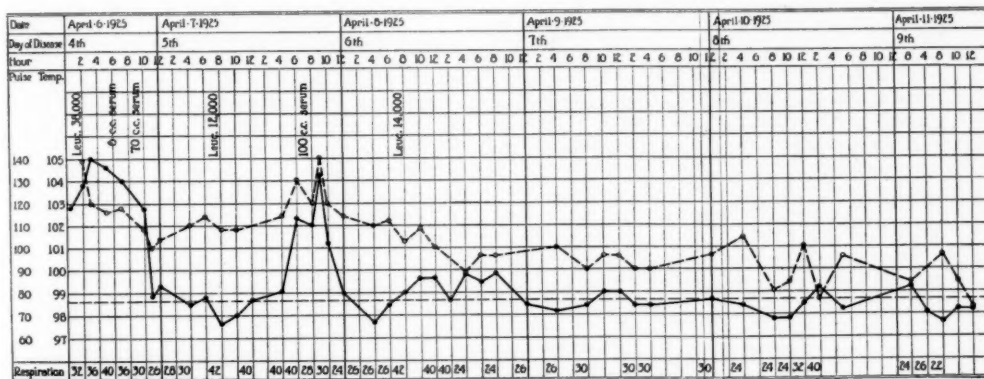


Figure 2

rise, respirations became rapid and labored and the patient again had the appearance of a sick pneumonia patient. Twenty hours after the injection the temperature had gone up to  $102^{\circ}$  and the patient was in appearance back where he was when the injection was given. This was our first therapeutic experiment with the serum and we were not prepared to give more. The patient's condition gradually became worse and he died on the seventh day of the disease. X-ray examination (bedside plate) shortly before death showed double lobar pneumonia (Fig. 1).

Case No. 3129 developed a chill, fever, and pain in the right chest on the evening of April 3, 1925. The patient soon developed dyspnea and cough with brownish expectoration. On April 6 the patient entered the Minneapolis General Hospital. At 6 p. m. of this day the patient was

given a desensitizing dose of serum. Physical examination at this time revealed dullness over the right upper, middle and upper part of right lower lobe. X-ray showed consolidation of the right lung. Over this area were faint distant breathing with lengthened expiratory breath sounds in some places, bronchial breath sounds in other parts of this dull area. Crepitant râles were heard in the axilla, and over the upper part of the lower lobe on the right. Sputum showed pneumococci and killed a white mouse from which a pneumococcus was cultured. At 9 p. m., 70 c.c. of the antipneumococcal serum were given intravenously, just seventy-four hours after onset of the initial chill. At this time the leukocyte count was 38,000; temperature was  $104^{\circ}$ ; and the patient was having great difficulty in breathing. He was bringing up typical lobar pneumonia sputum and was cyanotic at this time. At 10 p. m., the patient began to perspire profusely and at 12 p. m., three hours after the injection, the temperature was down to  $99^{\circ}$ . At 9 a. m., April 7th, the patient no longer looked very sick; the cyanosis had disappeared and he said he felt fine. At 6 p. m. the interne was called and said that patient was cyanotic, looked badly and his temperature was up to  $102^{\circ}$ . At 7 p. m., 100 c.c. of the serum were injected intravenously. One hour later the patient had a chill lasting ten minutes. At 11 p. m., the patient was perspiring profusely and looking very much better. At 12 p. m. the tempera-

ture was  $99^{\circ}$ . Next morning the patient felt very well and had the appearance of a well man except that he was very weak. Uneventful recovery (Fig. 2).

Case No. 3063 entered Minneapolis General Hospital at 2 p. m., April 7, 1925. He had experienced a chill and fever with difficult breathing on the morning of April 6th. Physical signs and bedside x-ray on entrance agreed in the diagnosis of lobar pneumonia involving the right upper and part of right lower lobe. The leukocyte count was 44,000. The patient was irrational in the evening of April 7th and at 9 p. m. 75 c.c. of serum were given intravenously. The temperature dropped to  $102^{\circ}$  at 12 p. m. There were no other outstanding effects of the serum injection excepting a drop in the leukocyte count to 10,400. It was impossible to get more serum for this patient and he went on untreated

by serum until the morning of April 8th (sixth day of disease), when the temperature came down to normal and stayed down and the patient made an uneventful recovery. Sputum injected into a white mouse gave a culture of pneumococcus, type III. See Figure 3.

Case No. L-2828 had had pneumonia previously on three occasions. On the afternoon of April 4, 1925, he had a chill, fever, and dyspnea. He did not cough until April 8th. Rusty sputum on April 9th showed pneumococci. On hospital entrance (April 9th), at which time the patient had physical findings and x-ray confirmation of a lobar pneumonia of the right upper and lower lobes, the process in the lower lobe seemed of recent origin. The patient was very cyanotic and breathing with difficulty. At 4:30 p. m. on April 9th, 100 c.c. of serum were given intravenously. The temperature was 104° at 7 p. m. and the patient began to perspire profusely. At 11 p. m. the temperature was down to 99.6° and the patient was no longer cyanotic. Every doctor and nurse who has seen the patient before remarked about the striking change for the better. On the

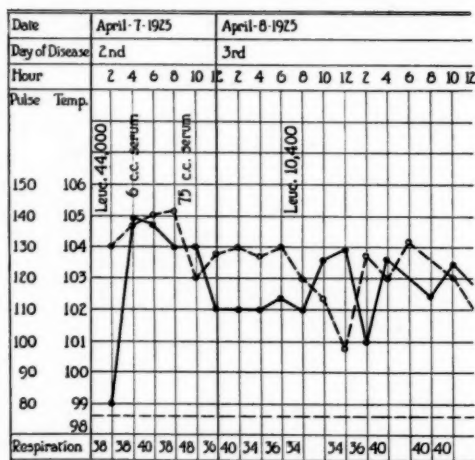


Figure 3

morning of April 10th the patient had a temperature of 99.4°, was breathing easily, and had no cyanosis. He said he felt very much better. Later in the morning of this day the temperature started to go up and by afternoon reached 103°. No serum was on hand because of the low rate of production at this time. The temperature stayed around 101-103° until the morning of April 12th, when the temperature fell to normal. At this time the patient developed a discharge from both ears. Later he developed a mastoiditis with a Bezold abscess. The left mastoid was operated May 1st. At present he is convalescing from the mastoid operation. No culture was made from the pus. Sputum injected into white mouse showed a culture of pneumococcus, type III. See Figure 4.

Case 3817 developed a chill and pain in the right thorax about noon of May 4, 1925. About the same time fever, cough and bloody sputum developed. About 4 p. m., May 6, he entered the Minneapolis General Hospital, at which time

a diagnosis of lobar pneumonia involving the right lower, middle, and upper lobes, was made by physical examination and confirmed by bedside plate taken at time of entrance to hospital. Leukocyte count on entrance was 25,500. At 10 p. m., 100 c.c. of serum were given intravenously. At this time the temperature was 102.4° by mouth. At 11 p. m. the patient started to perspire profusely. At 6:30 a. m. on May 7th the temperature was down to 98° and the patient felt very much better. The patient had had lobar pneumonia six years previous and said he felt as though he had passed through the stage where in the previous pneumonia he had perspired freely and sweat profusely and which was the beginning of his recovery. In other words, he felt that he had gone through a "crisis." By noon the patient's temperature was up to 100°, and at 1:45 p. m., at which time temperature was 100° by mouth, 100 c.c. of serum were given intravenously. At 3 p. m. the temperature was 102°. At 10 a. m., May 8th, the temperature was 101.6° and at noon was 99.8°. At 10 p. m., May 8, it was 99° and at 4 a. m. on May 9 it was 93.4°.

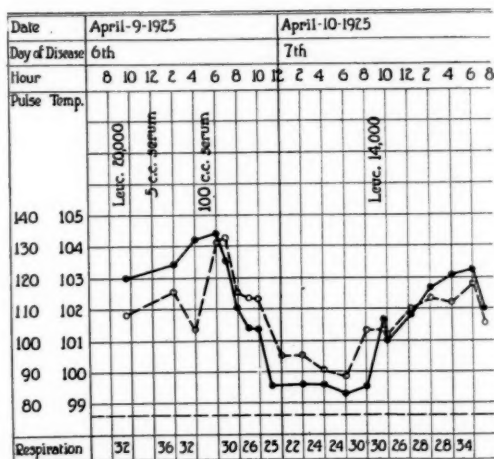


Figure 4

The patient felt well, excepting for pain in the right chest, from a period beginning with the morning of May 8th on until hospital discharge on May 19, 1925. X-ray on May 12th showed nearly complete resolution already at this early date. Sputum gave a culture of pneumococcus. See Figure 5.

Case No. 3688, age 60, developed erysipelas about the nose on May 1, 1925. On May 4th, a consultant discovered signs of pneumonia in the right upper lobe and advised the patient to go to the hospital. The patient entered the hospital on May 5th, at which time erysipelas had nearly disappeared but she had the symptoms and signs of lobar pneumonia. On entrance the temperature was only 100° by mouth; respirations were labored and not very rapid. The physical signs were those of marked dullness and bronchial breathing over the right upper lobe. X-ray taken at the bedside showed consolidation of the right upper lobe

only, at this time. On May 6th the x-ray, as well as physical examination, showed complete consolidation of the right lung. The leukocyte count at this time was 12,000. At 2:30 p. m. 100 c.c. of serum were given intravenously. This was followed by a chill of seven minutes' duration and a rise in temperature from 103° rectal to 104.4° rectal. At 6 p. m. the patient began to perspire profusely and at

The injection was followed by a chill one hour later and the temperature rose to 105.4° at 4:30 p. m. At 5:30 p. m. profuse perspiration set in and by 9 p. m. the temperature had dropped to 99.6°. The patient was extremely weak and cyanotic. The temperature rose to 102° rectal by 1:30 p. m. The patient was cyanotic and irrational. From this time on there was little hope of the patient's recovery. She

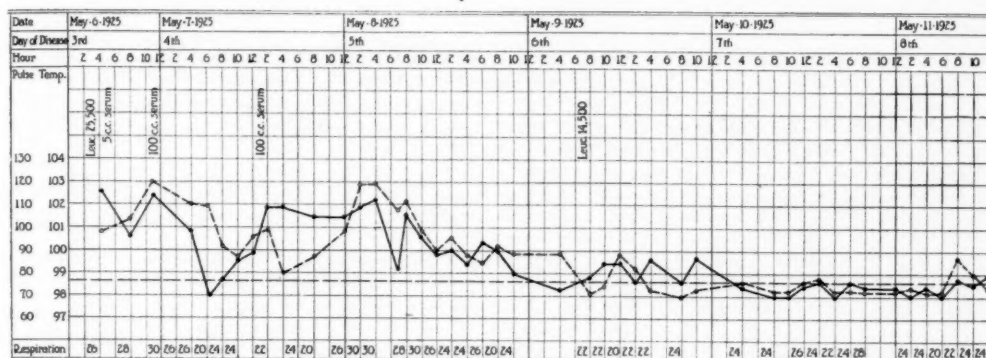


Figure 5

8 p. m. the temperature had dropped to 99° rectal, and she felt much better. At 11 p. m., May 7th, the temperature taken rectally was 102.4°. At 2 p. m., 50 c.c. of serum were given intravenously without any effect. The temperature remained around 102°-103° rectal until May 8th, when 100 c.c. of serum were given intravenously at 10:30 a. m., followed by a twenty-minute chill. The temperature rose to 105° by 12:30 p. m. and fell to 100° rectal by 4:30 p. m., following profuse perspiration. At 9 p. m., May 8th, the temperature was 99.6° rectal. The patient was very weak and showed a mild degree of cyanosis. By 11:30 p. m.,

became progressively weaker, was always irrational and was very cyanotic. By May 11th there was evidence from physical findings and x-ray that the process in the right lung was resolving but there was also evidence of a new consolidation in the left lung which progressed steadily so that by May 12th nearly the whole left lung was involved. The temperature was not high and on the afternoon of May 13th it was normal. The patient died early in the morning of May 14th. The leukocyte count went up to 25,000 following the first serum injection and remained between 25,000 and 30,000 until death. No autopsy was allowed. Sputum

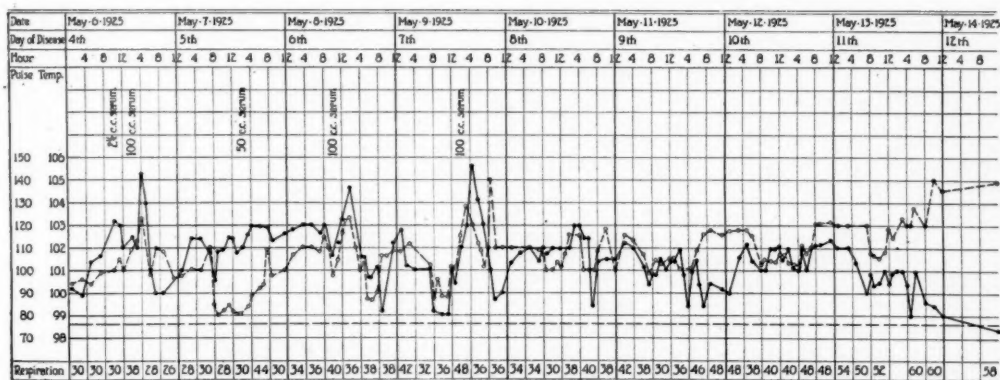


Figure 6

the temperature was 102.4° rectal. One a. m., May 9th, the temperature was 103° rectal. The patient was extremely weak and irrational all that day. The temperature dropped to 99.6° at 8 a. m. and went back to 102° by 2:30 p. m., when 100 c.c. of serum were given intravenously.

injected into white mice yielded pneumococci. See Figure 6.

Case No. L-3831 developed a chill and fever the evening of May 10, 1925. The next morning he had pain over the left upper thorax and began to cough rusty sputum. He

entered the hospital on May 14th, at which time physical examination showed dullness, tubular breathing, and some crepitant râles in the left upper lobe. A bedside x-ray plate showed diffuse infiltration of the left upper lobe on May 15th. Temperature on May 14th, on entrance, was 101.4°. It dropped to 99° within a few hours. The temperature was normal all day May 15th. The leukocyte count on May 14th was 22,500 and on May 15th was 16,000. The patient brought up sputum in which pneumococci were demonstrated. He appeared to be convalescing and no serum was given. The morning of May 16th the patient complained of pain over the right lower thorax; his respirations became very difficult; the temperature rose to 104.6°; there was dullness and bronchial breathing over the lower and middle right lobes; and dullness and distant breathing over the upper right lobe. There was also increased dullness over the left upper lobe and crepitant râles over the whole of the right lobe and left upper lobe. The leukocyte

10 p. m. to 99.6° but rose again to 101.8° by midnight. At 4 a. m., May 18th, it was up to 103°, but dropped to 101° at 8 a. m. At 8 p. m., it was 102°. At 9:15 p. m., 85 c.c. of serum were given intravenously and at midnight the temperature was 99.6°. By 8 a. m., May 19th, it had dropped to 98°, but rose again to 100.6° by 2 p. m. The right lung was decidedly less dull this day and an x-ray showed resolution in the right upper- and lower lobes but a dense shadow in the right middle lobe. From this time on, convalescence was normal. X-ray on May 25th showed nearly complete resolution. Some shadow still persisted in the left upper. A shadow in left upper was still present on June 2nd and the radiologist believed it to represent chronic fibroid tuberculosis. Sputum injected into white mice gave pneumococci. See Figure 7.

One case of lobar pneumonia from which a pure culture of streptococcus viridans was isolated by

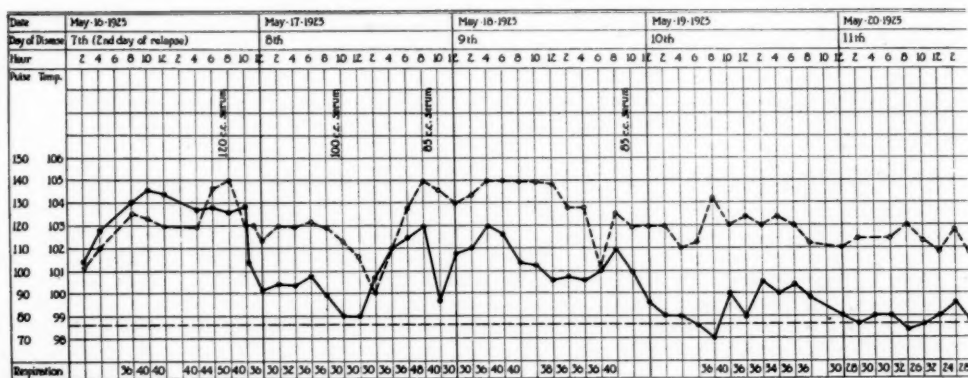


Figure 7

count was 20,000 and x-ray revealed consolidation of the whole of the right lung, more marked in the middle and lower lobes. The patient appeared to be a very sick man at 6 p. m. when seen by us. We believe that the patient had a relapse on this, the seventh day of his illness. At 8 p. m., 120 c.c. of serum were given intravenously. At this time the temperature was 103.8° and the patient looked extremely ill to all physicians who saw him at this time. At 10 p. m. the patient began to perspire profusely; at 11 p. m. the temperature was 101.4°. At 8 a. m. of May 17th the temperature was 100°, and the patient said he felt fine. At 10 a. m. the temperature was 99° and at this time 100 c.c. of serum were given intravenously. By 4 p. m., May 17th, the temperature had risen to 102°. At 9:15 p. m., 85 c.c. of serum were given. The temperature dropped at

blood culture did not react in the slightest to two injections of this serum.

In using this serum we have observed chills coming on about one hour after intravenous injection in three of seven cases. During this period, which lasts about ten to twenty minutes, breathing is labored and the patient becomes cyanotic. There has been no alarming degree of dyspnea or cyanosis observed thus far.

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## THE TREATMENT OF TOXEMIA ASSOCIATED WITH GASTRIC STASIS, OBSTRUCTIVE AND NONOBSTRUCTIVE\*

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Intestinal obstruction ordinarily suggests shock, abdominal pain, distension, and vomiting occurring with such conditions as volvulus, intussusception, or strangulated hernia. A more subtle and less easily recognized type of ileus may occur with obstructing benign or malignant lesions at or near the pylorus. Occasionally after operations on the stomach a functional or nonobstructive ileus occurs which is clinically indistinguishable from that caused by actual organic obstruction. The recognition and treatment of the acutely toxic condition arising as a result of this type of organic or functional ileus will be discussed here.

### SYMPTOMS

The clinical features of this toxemia are<sup>1</sup>: vomiting, dehydration, neuromuscular irritability, prostration, low blood pressure, oliguria, or anuria, while fulminant cases sink into what may be termed a typhoid state. Vomiting is seldom forcible but is rather a "slopping over" of accumulated secretion. If vomiting does not occur, large amounts of secretion may be recovered by the stomach tube. Dehydration is usually extreme and the hemoglobin reading may be high, due to concentration of the blood. Neuromuscular irritability shows itself in twitchings of superficial muscles, and occasionally in tetany. It is probable that all cases of true gastric tetany fall into this group. Prostration may be extreme, with low blood pressure and the thready pulse of shock. The patients become drowsy, semicomatose, and may have a semicadaverous appearance which is sometimes relieved by a malar flush due probably to the high percentage of hemoglobin in the blood and the decreased vasomotor tone of the blood vessels. The physical signs of obstruction are often absent; the abdomen is not distended or tense, peristalsis disappears, and there is no complaint of severe abdominal pain. This is a clinical picture of approaching dissolution, and although patients with these

symptoms may be resuscitated in a dramatic fashion by appropriate treatment it is desirable that toxemia should be recognized earlier so that treatment may be instituted promptly.

### DIAGNOSIS

The most significant diagnostic criteria are obtained by studies of the blood chemistry, which, if toxemia exists, will reveal an increase in the blood urea or other nonprotein fractions, a decrease in the plasma chlorids, and a tendency toward an increase in the alkali reserve of the blood, as shown by an increased ability of the plasma to combine with carbon dioxide. The rise in blood urea is probably due chiefly to increased tissue catabolism, since the nitrogen excreted in the urine is greatly in excess of what would be expected from the low intake of proteins in the food. In advanced cases there is actual renal damage; other factors concerned in the high urea content of the blood may be the slowing of the circulation and the low sodium chlorid content of the blood. The vehicle conveying waste from tissues to kidneys not only moves slowly because of the low blood pressure, but, when it arrives at the kidney, discharges its contents slowly and with difficulty, because of lack of sufficient electrolytes to carry on the osmosis.

This type of toxemia is usually readily distinguished from nephritis. In each condition there is a rise in blood urea, but in nephritis there is a tendency toward retention of chlorids and toward acidosis, whereas in this type of toxemia there is a fall in chlorids and alkalosis. The fall in whole blood and plasma chlorids is not completely explained by the vomiting of hydrochloric acid, since chlorid depletion has been observed experimentally and clinically without vomiting.<sup>2, 3</sup>

It has been demonstrated that tetany occurs only in cases in which there is a high alkali reserve, and that tetany should be anticipated when the carbon dioxide combining power of the plasma rises above 100 volumes per cent, although much higher values may be attained without spontaneous carpopedal spasm.<sup>5</sup> Kast, Myers and Schmitz have shown that acetone bodies may be found in the urine of patients with a high alkali reserve and a high hydrogen-ion concentration of the blood, that is, a condition of alkalosis. The erroneous conception that ketonuria means acidosis might conceivably lead to harmful therapy, for example, the use of alkalis.

\*Read before the Minnesota State Medical Association, Minneapolis, April 27-29, 1925.

## TREATMENT

In the treatment of toxemia with gastric stasis I have used intravenous injections of 10 gm. (1 per cent) of sodium chlorid, and 100 gm. of glucose (10 per cent) in 1,000 c.c. of freshly distilled sterile water. At least twenty minutes are allowed for each injection; 1, 2, or 3 liters of the solution are injected daily, the intravenous injections being supplemented by hypodermoclysis and proctoclysis. Water and hypertonic solutions of sodium chlorid and glucose are all diuretics of the first order. Hypertonic solutions of sodium chlorid and glucose also stimulate peristalsis, as has been shown experimentally. Sugar is a readily usable source of energy and spares tissue catabolism. Physiologic sodium chlorid solution has proved efficient in restoring depleted chlorids and in reducing the carbon dioxide combining power of the blood. Clinical improvement is heralded by free diuresis and the restoration of peristalsis. This improvement may be measured by the daily studies of the blood chemistry.

*Precautionary measures.* — The stomach is lavaged only to secure diagnostic data in the early stages and to remove excessive accumulations of secreted material which by their gross weight may embarrass the gastric motor function. The hypothesis that this secretion is toxic and that its removal eliminates one cause of the toxemia is not supported by clinical experience. If it can be made to move onward the fluid and the hydrochloric acid which it contains are undoubtedly useful adjuncts in treatment. Alkalis, for example, bicarbonate of soda, are contraindicated because they may increase the alkalosis and thereby predispose to tetany. This point deserves special emphasis since bicarbonate of soda has been widely recommended in textbooks and by surgeons as a constituent of solutions to be used postoperatively for lavage and for proctoclysis. The use of alkalis should be restricted to cases in which acidosis is suspected clinically and the suspicion is supported by adequate laboratory proof.

Intravenous injection must be regarded as a surgical procedure, safe only with perfect technic. Since repeated injections are usually necessary, the greatest care must be exercised to preserve the superficial veins. Needles must be sharp and the operator should be expert. The possibility of waterlogging a patient must be kept in mind, and

to avoid untoward results an accurate daily statement of the fluid balance should be prepared, together with daily estimations of urea, chlorids, carbon dioxide and blood pressure.

Obviously, it is desirable to recognize cases early so that appropriate treatment may be commenced early. Early diagnosis depends on a wide threshold of suspicion, prompt studies of the chemistry of the blood, and a comprehensive daily summary of the fluid balance, blood chemistry data and blood pressure in suspected cases. Gastric retention, falling blood pressure, and diminished urinary output are clinical danger signals. The precise measurement of the degree of toxemia is only possible by studies of the chemistry of the blood which are warranted by the high mortality rate in cases of severe toxemia.

## SUMMARY

A method is outlined for the diagnosis and treatment of the toxemia associated with certain cases of organic and functional gastric stasis. The toxemia may be controlled in the presence of actual organic obstruction, thereby reducing the risk of the operation indicated to relieve the obstruction. In postoperative stasis simulating organic obstruction, relief from the toxemia by appropriate treatment frequently clears up all suspicion of organic obstruction. Early recognition of this toxemia depends on a wide threshold of suspicion, early studies of the chemistry of the blood, and an accurate daily summary of gastric retention, urinary output, fluid balance, and blood pressure.

## REPORT OF CASES

*Case 1.*—A man, aged fifty-one, registered at the Mayo Clinic December 18, 1924. Three months before registration he had had a "bilious" sensation or a feeling of fullness immediately after eating, with occasional nausea and vomiting. After six weeks he was free from symptoms for one month, then for two weeks he vomited once or twice daily, always several hours after taking food. Sometimes the vomitus contained food eaten fifteen hours before, and recently it contained coffee-ground material. He had lost 45 pounds in three months.

When the abdomen was examined peristaltic waves were seen to move from left to right over the epigastrium. There was an ill-defined tumor in the right upper quadrant in the region of the pylorus. In the first gastric contents aspirated (500 c.c.) the total acidity was 20, and free hydrochloric acid 10. The diagnosis made was pyloric obstruction probably due to a malignant lesion. Although the patient was dehydrated, he was not prostrated, and operation was delayed because of an upper respiratory infection which gradually subsided. (Table 1.)

TABLE 1. TREATMENT OF TOXEMIA STASIS

Date	Intake, c.c.						Fluid balance + or —	Output, c.c.					Blood chemistry				Blood pressure	
	Proctoclysis	Subcutaneous	Intravenous	Mouth	Sodium chlorid, gm.	Glucose, gm.		Total	Emesis	Lavage	Proctoclysis expelled	Urine	Urea	Chlorids	Carbon dioxide combining power	Hemoglobin, per cent	Systolic	Diastolic
12-18-24				500			500	— 400	900	100	800	400						
12-19-24	250			1600	2.2		1850	+ 850	1000	0	400	1000	62	290	116.4	85	80	50
12-20-24	500		2000	2100	24.05	200	4600	+ 1450	3150	400	1500	1250			118.4			
12-21-24	500	750		1900	11.2	50	3200	+ 1600	1600	200	200	1200	40	340	111.2	64	90	60
12-22-24	250			1800	2.2	25	2350	+ 550	1700	0	500	1200	24	400	97.4	80	90	60
12-23-24	250			2450	2.2	25	2700	— 200	2900	0	1200	1700	28	360	101.7	82	90	60
12-24-24	300			2500	2.7	30	2800	0	2800	0	1200	1600	28	380	96.5	78	95	60
12-25-24	250			2400	2.2	25	2650	+ 1350	1300	0	0	1300						
12-26-24	300			1500	2.7	30	1900	— 1200	3100	0	2000	900						
12-27-24	400			1350	3.6	40	1750	— 800	2500	800	1200	500	32	410	95.7			
12-28-24	900			2750	8.1	90	3150	+ 1250	1800		1000	800						
12-29-24	500			2300	4.5	50	2800	+ 1000	1800	0		1800	28	360	85.3	70		
12-30-24	900			2500	8.1	90	3400	+ 950	2450		600	1850						
12-31-24	100			2000	0.9	10	2100	+ 200	1900		450	1500						
1-2-25	Operation, anterior gastro-enterostomy																	
2-6-25													28	550	68.1			

At operation, January 2, 1925, a pyloric tumor, 6 by 4 cm., was found (Table 1). The tumor, which was fixed posteriorly by inflammatory exudate, was not considered resectable. An infiltrated node, which was removed, showed histologic evidence of carcinoma. An anterior gastro-enterostomy was performed, and convalescence was satisfactory.

*Comment.*—Although the depletion of plasma chlorids and the heightened alkali reserve were striking in this case, the blood urea was not high and the patient's condition did not appear dangerously toxic. Diuresis on the whole was satisfactorily maintained by administering water. It is noteworthy, however, that when the fluid intake was less than 2,500 c.c., the gastric retention increased and the urinary output decreased. It was difficult to administer fluids intravenously, and since indications for it were not urgent, this method was abandoned. The failure of the chlorids or of the alkali reserve to become adjusted may be contrasted in Table 2 and can be best accounted for by the removal of hydrochloric acid by gastric lavage and emesis, and by the fact that the sodium chlorid administered did not satisfy the demands of the depleted tissues.

Attention is called to the findings in the blood five weeks after operation.

*Case 2.*—A man, aged thirty-eight, was first observed in 1903, when he gave a history of the peptic ulcer type of dyspepsia, with repeated severe hemorrhages of three years' duration. A bleeding perforating duodenal ulcer, 1.0 cm. in diameter, commencing 1.5 cm. below the pylorus, was excised and the defect closed. A long appendix containing fecal stones was also removed. The patient remained free from symptoms until 1920, when there was a recurrence of mild ulcer dyspepsia. A rather severe hemorrhage occurred in November, 1924, and again March 17, 1925. The hemoglobin (Dare) was 52 per cent on March 20. The stools were free from evidence of occult blood March 30, 1925.

March 31, 1925, seventeen years after the first operation, a partial duodenectomy was performed; an area of ulceration 1.5 cm. in diameter being removed. The pylorus was split and an anastomosis made between the stomach and the end of the duodenum. The immediate postoperative course is recorded in Table 2. The patient was dismissed from the hospital in excellent condition April 24, 1925.

TABLE 2.—TREATMENT OF TOXEMIA STASIS

Date, 1925	Intake, c.c.						Fluid balance + or -	Output, c.c.					Blood chemistry				Blood pressure
	Proctoclysis	Subcutaneous	Intravenous	Mouth	Sodium chlorid, gm.	Glucose, gm.		Total	Emesis	Lavage	Proctoclysis expelled	Urine	Urea	Chlorids	Carbon dioxide combining power	Hemoglobin, per cent	
3-31	2000				0	0	2000	+ 2000	2000			0					
4-1	2000				0	0	2000	+ 250	1850		1000	850					
4-2	2000				0	0	2000	+ 700	1300		500	800					
4-3	2000			205	0	100	2205	+ 1205	1000		300	700					
4-4	1500			555	0	75	2055	+ 355	1700		900	800					
4-5	2000			430	0	100	2430	+ 980	1450		325	1125					
4-6	1500		1000	750	10	175	3250	+ 75	3175		425	2750	122	104.3	390		
4-7	1500		3000	1335	30	375	5835	+ 2765	3070		45	3025	77	88	470		
4-8	2000			1770	?	100	3770	+ 1825	1945		45	1900	49	76	500		
4-9				2160			2160	360	1800			1800	31	77	470		
4-10				2210									23	61	560	53	

*Comment.*—In this case there may have been temporary organic obstruction due to inflammatory reaction at the site of the anastomosis, or stasis may have been due to transient inhibition of motor function from the necessary surgical trauma. In either case, it is important that the toxemia could be controlled without the necessity of further operative interference, such as the introduction of an enterostomy tube.

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## DISCUSSION

DR. D. C. BALFOUR (Rochester): The complication which Dr. McVicar has described illustrates very forcibly the fact that the clinician and the surgeon are absolutely dependent on each other for the safe management of such cases. The greater the experience of the surgeon the more he realizes that there are many details in the treatment of surgical conditions which demand a training which he has not been able to acquire. Whatever may be our attitude toward high specialization, it is true that the important advances in medicine and surgery in the future will probably be made by those who have devoted their energies to a relatively narrow field. The results of the management of these cases of high intestinal stasis illustrate this fact. The former methods of treatment of these cases were partially successful, since by repeated gastric lavage and the administration of fluids, recovery often took place, but some of these patients died and we know now that some of those deaths were unnecessary. The method of early detection and treatment of these cases which Dr. McVicar has described has unquestionably saved the lives of patients who would have succumbed under former management.

The surgeon, of course, is particularly interested in those cases in which operation is anticipated or has already been carried out. In the preoperative management of cases with marked obstruction at the pylorus, whether from a benign or a malignant lesion, the surgeon has learned that operation can be carried out with much greater safety if preparation of the type just outlined has been made. The advantage in the treatment of a benign lesion is that the toxemia which is associated with the obstruction can be recognized and can be controlled by the intravenous injection of a 1 per cent sodium chloride solution and 10 per cent glucose solution. When the toxins have been

neutralized, as is shown in the decreased urea, carbon dioxide combining power, and in the increased chlorides, the patient can be operated on with a much greater measure of safety. Another advantage in the preoperative neutralization of toxemia is that the patient has become accustomed to the use of the stomach tube so that its postoperative use, whenever necessary, is not quite so discomforting as it would have been had the stomach not already been systematically lavaged. The advantage in the treatment of carcinoma with obstruction is even greater; for not only is the toxemia controlled, but in many cases it becomes possible to do a resection of the stomach in one stage in cases in which the risk of a one-stage operation was formerly found to be so high that it was necessary to relieve the obstruction first, and then remove the growth at a secondary operation.

The point to emphasize in this group of obstructed cases is that the responsibility of putting the patient in condition for operation should be assumed by the clinician and he should be closely associated with the surgeon in the postoperative care of the patient so that the operation itself is more or less of an incident in the management of the case. Not only should the clinician play a large part in the immediate supervision of such patients, but such supervision should be maintained in the subsequent convalescence, since the results of the treatment of peptic ulcer will be made much more certain by reason of it.

Finally, one would have no hesitation in saying that this method of management of these serious cases is a real advance in medicine, and it is a tribute to what can be accomplished by clinical investigation based on precise methods of examination in the laboratory and at the bedside. It is an example of the growing recognition of the value of proper co-operation between clinician and surgeon.

DR. E. L. TUOHY (Duluth): Are there any surgeons present? Since Dr. McVicar's article appeared in the *American Journal of Medical Sciences* we have been giving some attention to this very important matter. To an internist who delves intensively in diagnosis upon folks who have passed the fortieth and fiftieth year his responsibility can not be dropped when the patient enters the operating room. It is one thing for a surgeon to develop a reputation on operations about the pelvis and quite another to retain his reputation when he operates on the upper abdomen. The fearful things that happen, including lung complications, what is called acute dilatation of the stomach, postoperative ileus, truly mark a train of ruin. Anything that comes along that tends to obviate many of those difficulties should be listened to very attentively.

Only in the last number of the *A. M. A. Journal* appears a short article dealing with a simple method of overcoming vomiting, and it is this: The giving of copious draughts of two per cent salt solution. Now this brings up a flood of experiences that would be too long to enumerate and would get us nowhere, but several things come to my mind. There are not a few migrainers who have gotten relief from the drinking of salt water. Usually they take it in order to encourage vomiting. Anything that will keep the peristaltic gradient normal according to Alvarez is soothing to the patient. The quietude of the musculature about

incisions is very vital to the comfort of the patient, whether the operation be intra-abdominal or otherwise. It is odd how many patients operated on for hernia under a local anesthetic have severe postoperative nausea.

Not a few young girls with anemia are prone to have regurgitation of food or vomiting. I long ago learned that they didn't need detailed examination with the stomach tube, but most of them got well promptly if given a little hydrochloric acid. They need chlorides. So, also, we learned that obstruction of the bowel was frequently associated with severe toxic states, anuria, and uremia with a piling up of the urea nitrogen in the blood.

We are indebted to Dr. McVicar for bringing this out and most particularly for showing us the accurate laboratory methods of diagnosis, because it is true that many of these patients have been treated on a basis of acidosis when they really have an alkalosis. I have seen tetany follow the continued administration of alkalis for duodenal ulcer. That they have some of the appearances of an acidosis is correct enough, but, in truth, they are suffering from alkalosis. I have not seen, in my own practice, tetany occurring after high obstruction.

Certain it is that doctors routinely make a great mistake in sending their patients into hospitals for operation, late in the evening, the night before they are operated. That is an absurdity that each one of us should make up our minds to change at once. Too often the doctors are afraid that if the patient stays in the hospital one day before operation he may change his mind and go home.

DR. C. S. McVICAR (closing): I am sure we are all interested in any early signs apart from blood chemistry studies which may hint at the development of this condition. Suggestive points for observation are indicated in the headings of the tables. If a patient is not getting along well postoperatively, an accurate daily summary is made of the intake of fluids and also of the output. Emesis should be measured as well as the amount recovered by lavage. The amount of proctoclysis expelled cannot be measured, but may be estimated. Blood pressure readings are significant. The signs suggesting the development of toxemia are a falling blood pressure, a falling urinary output, and a negative fluid balance; these are the clinical danger signs. The accurate estimation of the toxemia depends on blood chemistry studies. The mortality in severe cases is sufficiently great to warrant accurate blood chemistry studies.

#### THE PROFANE USES OF SCIENCE

Since that historic day when Dr. Samuel Johnson parodied the abusive fishwives of Billingsgate with the mathematical objurgation of "Rectangular parallelepipeds," science has progressed a great deal. There are now several brand-new sciences whose abusive possibilities had never yet been explored until Sir Henry Hadow, the dignified Vice-Chancellor of Sheffield University, revealed them at the last annual Conference of the Royal Microscopical Society, a serious scientific body not ordinarily given to persiflage. One of the learned papers dealt with that sprightly little creature, the neutrophil polymorphonuclear leucocyte.

I was glad that Doctor Balfour discussed the question of lavage, or at least gave an opportunity of referring to it again. The reason for the drop in chlorids has been an interesting matter for speculation. Of course, the loss of hydrochloric acid by vomiting would explain it, provided the vomiting were a constant feature. But we have had an opportunity of seeing quite a marked drop in chlorids with a high urea and high CO<sub>2</sub> in patients who didn't vomit, and there are some experimental data supporting this clinical experience. Vomiting is not a complete explanation for the chlorid drop.

Throughout the years, these toxemic patients have been treated on the hypothesis that the retained secretion was toxic and that if it was continually removed the patient would get well. Now, undoubtedly, patients do get well spontaneously, but whether they get well because of lavage or in spite of it is a question. The fact that the fluid removed contains a good deal of water and that it contains chlorids makes it seem quite worth while to leave it there. Lavage has to be practiced, however, in order to get accurate diagnostic data. If the total accumulation of fluid in the stomach, by its gross weight, embarrasses motor function in the gastrointestinal tract it should be removed. Gross gastric retention may also threaten a suture line.

There is one other point to emphasize,—Dr. Tuohy just touched on it,—and that is, that the diagnosis of an acidosis is probably often made when it is not actually present. The only accurate way of doing it is by an estimation of the alkali reserve of the blood by getting the carbon dioxide combining power or by the PH of the blood. Kast, Myers and Schmitz called attention to the fact, which has since been confirmed, that ketone bodies may be excreted in the urine of a patient who has actually an alkalosis, so that the presence of acetone bodies in the urine is not necessarily evidence of acidosis. This has an important practical bearing because it may mean that the finding of acetone bodies in the urine in this toxemia might lead to the therapeutic use of alkalis, which are definitely contra-indicated.

We believe the toxemia present in these conditions can be controlled in spite of the obstruction, and that the operation necessary to remove the obstruction is consequently much more safely undertaken, and that in the post-operative ileus with this toxemia the evidence which made one suspect or be afraid of obstruction disappears with relief from toxemia so that the operations are not necessary.

Then up spoke Sir Henry and said he:

There can be no doubt to the lay mind what that phrase means.

It means that on all occasions of public controversy a man who is white-blooded and distressed in an unduly bewildering diversity of opinions is beloved by neither side.

I have hitherto thought and wanted to call him a mugwump, and have refrained from doing so because that is not a word of academic dignity, but in future I shall know exactly how to deal with him. I shall call him a neutrophil polymorphonuclear leucocyte, and if that does not bring him to terms I shall regard him as beyond argument.—*The Living Age*.

## SURGERY IN THE DIABETIC \*

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The older surgeons will remember that a very few years ago the common teaching was that diabetic patients were extremely bad surgical risks. Our students were taught that no surgery should be undertaken upon diabetics except that which was lifesaving. The pendulum now swings to the other extreme; a better understanding of the disease, of proper regime, proper feeding, and most important of all the recent introduction of insulin, have placed these patients almost in a class with a non-diabetic individual. We all remember how a decade ago the mortality rate following operations upon diabetics ran all the way up from 30 to 50 per cent. Even at the present time in diabetics who are obliged to undergo emergency operations the mortality is still high. The reason for this of course is due to the fact that these patients have not been under diabetic treatment prior to that emergency and because of the urgency there has not been time to give them adequate and proper diabetic treatment before operation.

The results in surgery obtained by the modern method of treatment of diabetics are well expressed by the low mortality reported at Rochester in 327 operations performed from October 1, 1921, to October 1, 1923. The mortality percentage for all of these operations was only 1.2 per cent. Of these operations 141 were those of major surgery. This mortality rate compares favorably with that following general surgical procedures in patients who are not diabetic.

We believe that all diabetics should be under the careful, constant care of a competent medical man. We believe this is especially important if any surgery is contemplated, and we believe that it is this factor of careful observation and treatment, which of course includes the use of insulin, which makes it possible for us to do formal surgery upon these unfortunate patients with little if any added surgical risk. While it is sometimes impossible in emergency surgery to properly study, treat and prepare these patients for that surgery, yet at least we can generally see that they are given plenty of fluids and that their carbohy-

drate reserve is built up even for a brief period prior to surgery. While we are convinced that preliminary medical treatment is necessary in these cases, we also believe that these patients should be carried through the operative and post-operative period under the same constant care of the internist; in other words, there must be the closest co-operation between the medical man and the surgeon to tide these patients over their crises.

There are many conditions that call for surgical intervention in diabetics just as in other patients, whether the surgery is either of election or necessity. The prevalence of carbuncles in the diabetic is thoroughly understood and I believe adequately treated. Joslin holds that gallstones in the diabetic should be removed, affirming that the risk of surgery is less than the danger from the stones themselves.

Among the many phases of surgery in the diabetic there is one I wish to stress particularly, namely, gangrene of the lower extremities. This diabetic gangrene usually occurs in people of later life, ordinarily over fifty. We know that arteriosclerosis is a constant accompaniment of this condition. The obliteration of the arteries of the leg due to endarteritis obliterans or to the formation of thrombi, cuts off the blood supply of that extremity. The presence and extent of the gangrene depend upon the competency of the collateral circulation. This gangrene may be of the senile or dry type with a definite line of demarcation. It is much more liable, however, to be of the moist, spreading type with no line of demarcation but with inflammation and edema of the tissues and with marked constitutional symptoms. In the first type, the dry or senile gangrene, it is sometimes possible to defer operative interference. Nature herself has been known to amputate the toes of these extremities and if there is no tendency to acidosis, operative interference is not immediately indicated. The use of insulin and proper dietetic regime has occasionally been known to obviate the necessity of surgery, other than the picking off of the dead toes. It is in the moist type, however, where we have constitutional symptoms from infection, that the patient's life is immediately put in danger and operative interference is indicated. It is generally accepted by the surgeons of the world that amputation in this type of gangrene is indicated, and amputation is not only indicated but should be made high or above the condyles

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of the femur. Moschcowitz's test, while not absolutely conclusive, gives us evidence of very considerable value as to the condition of the circulation of the extremity involved. X-rays taken of the lower extremities of these patients practically always show distinctly the arteries which have undergone atheromatous or calcareous degeneration.

Experience shows that amputation below the knee or at the knee is frequently followed by sloughing of the flaps and by infection, which is secondary to the insufficient blood supply to the tissues. This necessitates reamputation with its added mortality. Therefore it is generally postulated that when amputation is advised, it should be above the condyles of the femur. We personally have records of fifteen lower thigh amputations for diabetic gangrene with but two deaths. After amputation a dissection was made of the extremity and in every instance the femoral artery was found to be obliterated or thrombosed and the circulation was cared for in that extremity by the profunda and collateral circulation alone.

We believe there are certain factors in surgery which make it possible to perform these amputations with a low mortality rate. First, preliminary medical treatment to provide for an adequate carbohydrate reserve to combat the tendency to acidosis and to get the urine sugar-free if possible. Second, the anesthetic. Personally we prefer the blocking of the anterior crural and the great sciatic nerves with novocaine and then the use of nitrous oxide and oxygen analgesia, in preference to ether. There are surgeons who feel that a small amount of ether does not increase the risk to these diabetics. We are prepared to admit that in order to obtain proper relaxation of the abdominal wall which we cannot obtain with local anesthesia, nitrous oxide or ethylene, we must have recourse to ether. We do know, however, that prolonged inhalation of ether increases and invites acidosis. We are convinced that whatever anesthetic is used its exhibition should be extremely brief and that

none of these patients should be subjected to prolonged operative interference. In the case of gangrene of the lower extremity, the so-called battlefield transfexion amputation of the thigh with anterior and posterior musculocutaneous flaps can be done in less than a minute. A few silkworm sutures and a drain take but a few moments to apply. More extensive or prolonged manipulations should not be resorted to. Delicate handling of the tissues is imperative because of their lowered resistance and their predisposition to infection because of the diabetes. Hemorrhage as a rule is slight and can be anticipated and controlled by the pressure of an assistant's fingers upon the femoral artery. We believe this is preferable to the application of a tourniquet because where there is already a tendency to disease and occlusion of the vessel, injury by the pressure of the tourniquet will increase the danger of thrombosis. If it is necessary to use a tourniquet at all this tourniquet should consist of a three-inch elastic Martin bandage applied over the breadth of a folded towel over the limb so that the pressure will be distributed over as wide an area as possible.

In conclusion we believe that diabetics can be tided over the crises of surgery by proper preliminary medical treatment which should be carried through the preoperative and postoperative period. We believe any operation undertaken should be done as rapidly as is possible. We believe the anesthetic should be brief and should if possible consist of local anesthesia with nitrous oxide and oxygen analgesia, in preference to ether. We believe the tourniquet should either not be used at all, or, if necessary, should be a wide one and left on for as short a period of time as possible. We believe that a minimum of manipulation or handling of tissues should be resorted to. We also believe that if these precepts will be followed the risk following operations upon the diabetic will be little greater than that incurred in operating upon patients who do not have an excess of sugar in their urine or blood.

#### COMPATIBILITY OF QUININ AND ACETYSALICYLIC ACID

It has been shown that long continued heating of some of the cinchona alkaloids, particularly quinin, with weak organic acids caused the formation of an isomer, erroneously called "quinotoxin," but more properly named quini-cin. These isomers were reported to be quite poisonous.

However, Sollmann reviewed the question and concluded that there is no occasion to fear toxic effects from the transformation of quinin into "quinotoxin" and that this substance is not especially toxic in the quantities that might be formed in the body. Mixtures of quinin and acetylsalicylic acid decompose slowly, but they do not become appreciably toxic. (*Jour. A. M. A., Apr. 4, 1925, p. 1070.*)

## TREATMENT OF GANGRENE IN ARTERIO-SCLEROTIC DIABETES\*

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In this short paper it is impossible to cover the entire field of surgery in diabetes, and I have therefore decided to limit myself to arteriosclerotic gangrene. Diabetic gangrene should not be classified as a distinct form, inasmuch as the pathology is the same as in straight arteriosclerosis. The pathological picture is the result of extensive arterial obliteration. The diabetes may give it a different picture at times, but we must not lose sight of the primary cause. Diabetic gangrene usually is the result of superimposed hyperglycemia allowing the infection to spread more easily. Originally this type usually accompanied ulcers of a trophic disorder, and as a result moist gangrene develops. Dry gangrene is the result of atheromatous changes of the vessels, without infection, and is due to impaired circulation.

Pathologically the picture is just the same in arteriosclerotic and diabetic gangrene. Extensive degeneration of the arterial walls with calcification and bone formation occludes the entire vessel. The arteries become rigid as pipe stems, and in places atherosclerosis with dilatation of the vessels, ending in thrombosis, may be found. Large areas of clot formation may be present. In the end this gives impaired nutrition, and it is not to be wondered that gangrene occurs. Therefore inadequacy of circulation may be in various stages of development. As a result, no definite objective phenomena of vascular obliteration may be found. But in the end, the presence of metabolic deficiencies due to diabetes is sufficient to lead to gangrene upon the mere action of a trifling trauma. The dorsalis pedis and popliteal arteries still may pulsate, but due to small clots in a dilated artery with trauma, infection rapidly spreads up the thigh. Roentgenograms of the vessels may show a completely calcified vessel, or only a mass of atheromatous tissue along its course.

Extensive inflammation in diabetic cases usually is associated with gangrene of the skin. A small

area of infection, usually near the base of the toes, is the point of entry. At times redness, tenderness, and pain may be the only symptoms, and still the deep tissues show extensive involvement. Some invasion of the plantar and dorsal tissue follows, and we find the deep structures invaded before the skin is attacked. Tendons, fascia, and muscles undergo a sloughing, suppurative process.

In the University series, 95 per cent of our cases appear during the winter months. It seems probable that cold is a great factor, and this has been especially true of dry gangrene. Most of our cases, however, have been moist gangrene, and unfortunately have come to the hospital after extensive infection has occurred. The former type does not need so radical a treatment, and with the use of iletin and medical care, this type permits us to wait for tissue to be "plucked off" the extremity. Moist gangrene, however, usually means amputation, for, in the end, surgery has to be resorted to more frequently in this type than in the former. The diabetic cases under our care in the University Dispensary have shown surprisingly little gangrene. Where it has occurred, it has not been severe, and usually has been of an infectious character resulting from cutting corns. In no case has amputation of more than a toe been necessary.

Diabetic patients over the age of fifty, with marked general arteriosclerosis, are the ones usually attacked. According to Joslin, about 20 per cent of all patients over the age of seventy develop gangrene. In our series at the University Hospital, one out of every six below the age of fifty-seven has had gangrene in some form. It rarely occurs in the young diabetic, and is relatively rare below the age of fifty. In all of our cases it has involved the lower extremity, with the exception of one individual. This lady, aged thirty-seven, had an involvement of the little finger of her left hand, which subsequently cleared up under luetic treatment. The causes of gangrene appear slowly, and therefore generally give a long period of preceding symptoms. Some complain of attacks of intermittent claudication; others complain of burning of the feet and cold extremities. The event usually terminating this period is the result of trauma, either thermal or mechanical, as an abrasion, often careless rubbing and scratching, or a burn involving the skin. Again the pernicious habit of treating corns, calluses, etc., with a dirty knife or under septic conditions, may be the offending

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cause. The stage has been set for a long period of years, and for that reason prophylactic treatment is so essential in all diabetics.

Of course, under prophylactic care, the proper treatment of the diabetes per se is essential. Although we have no direct evidence, it seems that hyperglycemia may be a great offender in the development of arteriosclerosis, and for that reason it is hoped insulin will give us a smaller number of these cases in the future. Also cleanliness of the feet is often forgotten. As Joslin has said, "It is best that a diabetic patient over fifty years of age should bathe his feet as carefully as his face if he wishes to avoid gangrene." The point is to keep away from infected abrasions of the feet if possible. Corns and toe nails should be cut only after cleansing of the parts involved, and under aseptic conditions, with clean instruments, and under bright light. The danger of strong irritants, of iodine especially, should be impressed upon these people. Great care should be used in choosing new shoes, and in avoiding the type that will pinch the feet. Efforts to maintain good circulation of the feet should be considered. Gymnastic exercise to increase the circulation should be used daily. These patients should not walk long distances; they should not allow their feet to remain in one position for a long period; nor should they sit with their legs crossed. Circular garters of any kind should not be used. Hot foot baths and massage should be encouraged. Passive hyperemia is dangerous, and any injury to the skin should be reported to the physician at once. Buerger's passive exercises can be recommended here rather than after gangrene has developed. Some physicians feel that metal arch supports are dangerous, but we have never seen any injury from them in the University series. Nevertheless, they are to be warned against. Minute detail, apparently foolish on first thought, can always be carried out better before gangrene has developed. A tourniquet should never be used by the surgeon at the time of operation. I am sure that this has been the offender in two cases in our series this year at the University Hospital. As a result, the flaps, even though taken from the thigh surface, necrosed in two days after operation. In each case, the tourniquet had been applied for about thirty to sixty minutes.

Joslin's rules for the treatment of the feet in diabetes cannot be impressed too carefully upon the physician or the patient. They are as follows:

#### GENERAL HYGIENE

1. Wash the feet daily with soap and water. Dry them thoroughly, especially between the toes.
2. When the feet are thoroughly dry, rub them well with hydrous lanolin, as often as is necessary to keep the skin soft, supple, and free from scales and dryness. If the nails are brittle and dry, soften them by soaking them in warm water a half hour each night and apply lanolin generously under and about the nails. Then bandage the feet loosely. The nails should be cleaned with orangewood sticks. Cut the nails straight across, and avoid injury to the toes.
3. Wear shoes which do not bind or rub. Wear new shoes one-half hour only on the first day, and increase one hour daily.

#### TREATMENT OF ABRASIONS

1. In the diabetic, insignificant injuries may result very seriously, therefore proper first-aid treatment of any abrasion is of the utmost importance.
2. Thorough cleanliness with soap and water is necessary.
3. Strong, irritating antiseptics such as sulphonaphthol and iodine are to be avoided.
4. The lesion should be covered with lanolin on sterile gauze under a slight bandage. Sterile gauze in small packages can be purchased at drug stores. Avoid using the foot as much as possible until the wound is healed.
5. The patient must consult a doctor for any infection.

#### TREATMENT OF CORNS AND CALLOSITIES

1. Wear shoes which cause no pressure.
2. Soak the affected foot in warm, soapy water. Dry and rub off or file off any dead skin. Then paint the corn with the following mixture: Salicylic acid, 1 dram; collodion, 1 ounce. Repeat the procedure for four nights; then, after soaking the foot in warm water, the corn will come off easily.
3. Do not cut corns or callosities.
4. Wear a pad to distribute pressure, if necessary.

#### CIRCULATORY AIDS

1. Prescribed exercise.
2. Avoid sudden changes in temperature.
3. If the feet are subject to chilblains, wash them daily in warm water, dry them carefully, and powder them lightly with borated talcum powder. Wear woolen stockings and avoid extremes of temperature.
4. Massage with lanolin.
5. Buerger's gravity-hyperemia method for bed-patients.

#### CONDITIONS REQUIRING ATTENTION IN DIABETIC FEET

1. Cold feet.
2. Dry, scaling, atrophic skin.
3. Thick, dry, brittle nails.
4. Corns and callosities.
5. Cramps.
6. Stiff or limited joints.
7. Discoloration with red or bluish areas.
8. Clammy, moist skin.

Various drugs have been suggested in the treatment of dry gangrene. Citrate introduced into the circulation has been used by some men. In our early series, it gave no relief. Thyroid extract has been suggested with the idea that it will "whip up" the circulation by giving increased activity of the heart. Both drugs seem rather ineffective, but might be tried at times. Subcutaneous injections of sodium nitrite in order to dilate the vessels seem more rational, and have given some improvement in cases where slight dry gangrene of the toe has occurred. The heart must be watched, and if there is evidence of myocarditis and muscular weakness, digitalis will help to increase the peripheral circulation. As a rule, nitrites and digitalis are the drugs to be recommended.

Methods to improve the circulation should be used in medical treatment, but are not applicable to all cases. Buerger's postural treatment is best. It gives greater help in cases where extensive phlegmon and extensive gangrene have not occurred. The treatment induces rubor and accelerates circulation. The treatment is as follows:

1. Elevate the extremity until a blanching of the foot has occurred. This requires a half to three minutes, depending upon the degree of circulatory impairment.

2. Hang the leg over the bed until distinct redness has developed. Usually this takes from one to two minutes. If pain develops, make both periods a shorter time.

3. Then allow the leg to be placed on the bed for a rest. This period may vary from three to five minutes. In general, a half to one hour completes this treatment, and then heat in some form should be applied, gradually in trophic disorders. The temperature should be slowly elevated to 125° F., and raised to no higher than 220°, great care being taken not to burn the patient. If extensive moist gangrene has developed, we are apt to do greater harm at this time. Heat is applied with each postural exercise. From two to six treatments a day should be given in the ideal cases.

The application of heat by special lamps is best. An electrical basket covered with flannel has been used in our cases. However, any hot air apparatus may be recommended, as electric lamp, electric pad, or diathermic apparatus.

Between periods of treatment, especially in dry gangrene, no bandages need be applied if a cradle

is put over the feet, and the bedclothes allowed to cover the extremities. This is also desirable for it does not allow the weight of the bedclothes to impair circulation.

After a definite gangrene has occurred, with or without infection, we then have a different condition to deal with. The damage has now been done. It is a question of how much can be saved out of the fire, and when the fire will spread. We now have to deal with a general systemic condition. The heart and especially the kidneys have to be considered in addition to our local conditions. Will the kidneys be able to excrete properly, with infectious metabolic processes injuring the kidney structure? We have to treat not only the diabetes, but uremia and acidosis as well. The heart muscle may be damaged by the toxic absorption of necrotic and infectious material, and in the end we may even have to deal with a bacterial infection of the blood stream. Therefore the first consideration in treatment is dietetic, with the proper amount of carbohydrates to allow the burning of the fatty acid radicals, and only sufficient protein to allow nitrogenous equilibrium. The closest co-operation between the physician and surgeon must be followed. Iletin has been a great help in combating the infection by reduction of hyperglycemia. It will allow us to get the patient ready for operation, if necessary, at an earlier date, and therefore it will prevent acidosis and uremia from occurring, before surgical intervention. The glycosuria is usually easily controlled.

A specimen removed at operation convinces one of the uselessness of delaying operation in some cases. We may regret that the limb was not removed earlier. Here x-ray will help reach a conclusion as to the condition of the arteries and the involvement of necrotic bone. At times it also helps to decide the site of amputation.

Undoubtedly we have been unfortunate in seeing the bad rather than the mild cases in the University series. Months in bed, with intense pain and suffering, is usually the history before entrance to the hospital. Add to this, foul smelling surroundings, with high temperature and sepsis, and you see the infection and gangrene sweeping over the extremity in a short time. Oftentimes amputation has been delayed so long that it is useless to attempt removal, and in justice to the surgeon, death should not be attributed to him so much as

to the physician's delay in reaching a definite decision.

This brings up the question of the time to operate. As a rule, with dry gangrene which is becoming localized, we can defer operation and watch events. However, moist gangrene may occur over night. Remember that you cannot save dead tissue, and, at the best, you have to wait months for the sloughing and dropping off of the involved area. In other words, do not wait too long before surgical interference. Severe pain and rapidly spreading moist gangrene are always definite criteria for operation. We do not intend to recommend radical surgery in all cases.

The surgical treatment of the gangrene we will leave to the surgeon. In general, also, the choice of the site of amputation is left to him. Remember that we have a better collateral circulation above the knee than below, but absence of a popliteal pulse may not be a contraindication for low removal. At any rate, the amputation should be high enough to get away from the localized infection and allow enough healthy tissue for a flap, with good circulation. If healthy tissues are found, we are in a better condition to close the area without drainage. Personally, we have found better results above the knee, and there is a better chance for the adjustment of an artificial leg.

Also the choice of an anesthetic may seem a minor detail. But we are dealing with minor details which may make a decided change in post-operative care. If possible, local and spinal anesthetics are the methods of choice. Our experience with ether has not been as successful as with gas and oxygen. However, the Mayo Clinic uses it with good results. Without entering into the discussion of the choice of gas or ether, let us do as rapid an operation as possible to avoid more opera-

tive damage than is necessary. As a rule, our cases in the University Hospital receive gas and oxygen as long as possible, and ether is resorted to later if necessary. In that way, only a small amount of ether has been used. Most of our fatal cases have had ether, but that does not mean that ether has been entirely the cause of death, for uremia, lack of kidney excretion, and cardiac failure have entered into some of these statistics.

#### CONCLUSION

Gangrene would seldom occur if the patient would take as good care of his feet as of his face.

Prophylactic care for all patients over the age of fifty should be taught.

Death from gangrene today is usually due to the inability of the physician and patient to make a definite decision.

Surgery often receives the blame for fatal cases, but as a rule the physician is at fault.

In the past, ether anesthesia and error in diet have been greatly responsible for the fatal outcome. Today, with the help of iletin, and proper medical and surgical supervision, we should have better results.

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*Sun and Moon Oil and Ointment.*—Alfred W. Lowrie, of Hartford, Conn., an alleged divine healer, mixes religion with his quackery. In a publication by him he is said to have died once, and while dead was ushered into the presence of the Supreme Being. While in heaven, Lowrie was presented with the "key to knowledge," to be used by him when he returned to earth. After Lowrie's visit to heaven, he seems to have started making what he is pleased to call "Sun and Moon Sacred Ointment" and "Sun and Moon Sacred Anointing Oil." The ointment is claimed to contain "vibrations of life from the radio-activity of electricity, magnetism, electrons and atoms." The ointment is to be used externally and internally for a variety of ailments. The A. M. A.

Chemical Laboratory found the composition of the ointment to be essentially: petrolatum 75.50 per cent, saponifiable fat 17.20 per cent, methyl salicylate 4.00 per cent, "dirt" 0.15 per cent, oil of sassafras, water and undetermined 3.15 per cent. The "sacred oil" is for external and internal use. It was claimed to have no equal for tired and sore feet, rheumatism, neuritis, lameness, hardening of the arteries and nerves, broken bones, skin diseases and other conditions. The A. M. A. Chemical Laboratory found the oil to consist essentially of fixed oil (probably olive oil) 87 per cent, methyl salicylate 5 per cent, oil of sassafras 1 per cent, alcohol 2 per cent, water and vegetable extractive 5 per cent. (Jour. A. M. A., Aug. 9, 1924, p. 458.)

## ✓ COMPRESSION THERAPY IN PULMONARY TUBERCULOSIS\*

A. T. LAIRD, M.D., and NEIL BLAKIE, M.D.

*Nopeming*

Rest of the diseased part promotes the healing of tuberculosis in every location. General rest, that is, bodily rest in bed, is always valuable in treating active tuberculosis whatever additional means for securing local rest are indicated. In many cases of pulmonary tuberculosis bed rest alone is all that is needed if used in association with fresh air and proper regimen. It lessens to a considerable degree the work demanded of the diseased lung and so promotes healing. To secure results this rest must be consistently and religiously maintained until the disease is quiescent. It can be made slightly more effective by posture and various external appliances.

The unyielding bony wall of the thorax prevents us from putting the lung completely at rest by external pressure without surgical intervention. In a certain number of well advanced cases it is now apparently proven that the patient's prospects are better with such intervention than without it.

It is generally recognized that we have a larger lung capacity than we can use under ordinary conditions and that we rarely need the reserve. Observations upon patients with chronic chest effusions or suffering from spontaneous pneumothorax demonstrate that a person can get along very comfortably with one lung out of commission.

It has been noted that in some cases the tuberculous lesions present in the compressed lungs cease to be active and heal. It has thus become evident that a tuberculous lung can be placed at rest almost as effectively as a splinted tuberculous joint. Ordinary bed rest quiets respiration but does not protect the lung against the violent movements on coughing. By compression, the lung is immobilized at its root and is reduced in volume not only by the pressure of the gas but also by the retraction of its own elastic tissue. The walls of cavities are brought in apposition, the lung is emptied of its contents like a sponge and its inflammatory exudates are squeezed out into the bronchi and removed. A blood and lymph stasis results so that the absorption of toxins and the dissemination of tubercle

bacilli to other parts of the body are reduced. The formation of connective tissue is stimulated and eventually the tuberculous lesions may all be encapsulated and healed. These favorable effects are especially apt to be seen where the disease is already definitely of a proliferative or fibrous character. If there is no disease in the other lung, it remains healthy but the behavior of slight lesions or those of moderate extent in the opposite lung varies. They may be excited to increased activity on account of the additional work placed on that lung or they may also heal as a result of the increase in the general bodily wellbeing and resistance to the infection.

Two forms of surgical compression are now widely used in selected cases: artificial pneumothorax and paravertebral thoracoplasty. Pneumolysis and phrenicotomy are sometimes used as supplementary procedures.

*Artificial Pneumothorax.*—This operation was first performed by Forlanini, an Italian, in 1892. John B. Murphy, without being aware of Forlanini's work, attempted the same procedure in 1898. It is doubtful if the method would have ever been used extensively if the development of the x-ray had not made possible the more accurate knowledge of the state of affairs within the chest, which is absolutely necessary for the safe practice of artificial pneumothorax. Without such help it would be a dangerous method of treatment.

As artificial pneumothorax is performed today a hollow needle is inserted through the chest wall in a space between two ribs. This needle has two connections, one going to a gauge or manometer and one to a bottle of air under pressure. The manometer is most important. When the needle is in the pleural space it registers a negative pressure which rises and falls with respiration. If this does not happen the needle is not in the free pleural space and no air should be admitted. If it does, air may be admitted gradually to the amount of 200 or 300 c.c., the condition of the patient and the manometer being watched carefully meanwhile.

On the following day the procedure is repeated and after a fair amount of compression is secured the intervals between refills are less frequent and larger amounts are introduced.

In some cases on account of adhesions no air can be introduced; in others only small amounts. The best results are obtained in those cases where a considerable degree of compression can be se-

\*Read before the St. Louis County Medical Society, Duluth, May 14, 1925.

cured although a partial compression is sometimes followed by some improvement in the patient's condition. If air is not reintroduced, that already present is absorbed and within a few weeks the lung will reexpand and probably become more and more adherent to the chest wall. To maintain the pressure many periodic repetitions of the initial procedure must follow through a long period of months and years.

**Thoracoplasty.**—The removal of portions of several ribs to permit the bony walls of the thorax to collapse and the pressure of the external air to be transmitted to the lungs is not a new operation. In the original Estlander operation for empyema, which involved the removal of ribs, the intercostal muscles and the parietal pleura were not removed. In his later operation which when extensive was very similar to Schede's operation there was complete removal of the ribs, intercostal structures and parietal pleura, so that the superficial muscular and cutaneous flap was brought right in contact with the visceral pleural layer. The incision in Schede's operation begins over the costal cartilage of the second rib, passes downward along the cartilages to the tenth, along the upper border of the tenth and then upward along the vertebral border to the second interspace. The operation is one of the severest in surgery and is not used to produce lung compression in pulmonary tuberculosis.

Friedrich<sup>4</sup> of Marburg used a similar incision but in place of removing the principal structures of the chest wall, removed only the ribs by subperiosteal resection, leaving the periosteum and the intercostal muscles uninjured. His idea was to produce a complete collapse of the lung by deossification. All of the ribs from the first to the tenth were removed. To this procedure he gave the name "Total pleuropneumolysis." He was led to employ this procedure after observing its beneficial effect upon the lung lesion in a case of advanced tuberculous osteomyelitis. Brauer, his colleague, then urged him to operate on a number of cases of unilateral tuberculosis in which the production of an artificial pneumothorax by operation was impossible on account of adhesions. The first operation was done in December, 1907, upon a Belgian. This complete Friedrich-Brauer thoracoplasty is associated with a very high mortality and with considerable shock and chest deformity. Some of the alarming sequelæ persisting for several days have been marked dyspnea and air hunger, paradoxical breathing and

pendulum air due to loss of bony support, mediastinal flutter and cardiac embarrassment from unsupported heart, sputum retention, aspiration dangers and pulmonary edema.

The Wilms operation of "columnar resection" was less formidable than the Friedrich-Brauer operation, but produced comparatively little collapse of the lung. It consisted in the resection of short pieces of the ribs at the costo-vertebral angle combined with the resection of short fragments of the costal cartilages. It was used somewhat extensively in Europe from 1911 to 1914. The immediate mortality was nil.

The Sauerbruch operation, which was really a modification of Wilms and consisted of a "posterior" or "paravertebral resection" of longer portions of all the ribs or of a limited number according to the extent of the disease and the condition of the patient, was first practiced by Sauerbruch in 1912.

This operation or modifications of it has been used quite extensively both in Europe and America. Sauerbruch resected four to eight centimeters from each of the ribs subperiosteally from the first to the eleventh at one or more sittings, and, like Wilms, took advantage of the fact that removal of those parts of the ribs posterior to their angles is essential for satisfactory compression.

The skin incision of the original operation runs from the level of the second rib vertically downward, in the paravertebral line and bends forward along the tenth rib. The muscles are cut through in the direction of the incision, so that the scapula at its posterior border is freed, and can be bent forward upon its anterior edge. The ribs are now resected from below upward, beginning with the tenth or eleventh, to the extent of 10 cm. below and 4 or 5 cm. above. The decision as to how many ribs are to be removed in the first sitting depends upon the condition of the patient during operation.

Pneumolysis is the separation of a lung or a part of a lung together with both its visceral and parietal pleura from the ribs and chest wall. The space created by the separation may be filled with muscle or fat tissue grafts or various tampons. It is used to supplement thoracoplasty by securing more effective compression of cavities and lesions at the apex of the lung.

Phrenicotomy or resection of the phrenic nerve causes paralysis of one-half the diaphragm and

permitting it to rise 1 to 3 inches higher in the chest is sometimes used in connection with both artificial pneumothorax and thoracoplasty.

*Selection of Cases.*—The number of patients whose lung involvement is sufficiently unilateral to warrant compression is variously estimated at between 2 and 10 per cent. At the Trudeau Sanatorium at Saranac Lake, of 209 patients discharged in 1924 nine, or 4.3 per cent, were treated by artificial pneumothorax. During the same period, of 409 patients treated at Nopeming 35, or 8.2 per cent, were given the same treatment. At the Manitoba Sanatorium one of us observed a still larger percentage (18 per cent) treated by this method. In both of the latter institutions there is a larger proportion of advanced cases than at Trudeau. In only a part of the cases in which it is advisable to attempt the treatment can satisfactory compression be secured.

The ideal case for compression is one of unilateral pulmonary tuberculosis in which the lesion is relatively far advanced, or advancing rapidly with softening and cavity formation, accompanied with marked toxemia. The lesion should preferably be at the apex and the lower part of the lung should be free from adhesions. In some such cases spectacular results which may be permanent can be secured. Adhesions, however, frequently interfere with the securing of satisfactory collapse and the attempt to produce it by pneumothorax will in many cases be unsuccessful. If after repeated trials satisfactory compression is found to be unattainable by pneumothorax it may still be possible to produce it by thoracoplasty. If the lesion is unilateral and early, still in the stage of infiltration, not progressing and apparently responding to the usual methods of treatment it is not worth while or desirable to attempt to compress the lung by any method. Sufficient rest to secure healing can be secured without risk by limiting the patient's exercise.

Few internists today recommend any attempts at compression until the patient has taken treatment for months and steadily lost ground. Excellent results are often secured by conservative methods. The progress of the case should be closely followed with the assistance of the x-ray so that a case that could be benefited by compression may not lose its chance of cure through neglect to apply compression. Artificial pneumothorax is also

sometimes indicated as an emergency measure to control hemorrhage.

In cases of unilateral tuberculosis where the disease is extensive and far advanced it may be advisable to select thoracoplasty at once as the method for securing collapse, though most writers recommend that artificial pneumothorax should have been attempted before the more radical procedure is tried.

The presence of a moderate lesion on the other side is not necessarily an absolute contraindication to either method of compression providing these foci appear to be inactive and limited in extent. This conclusion should be verified by x-ray study. With thoracoplasty the risk of stirring up trouble in the opposite lung by sudden throwing of extra work upon it is greater than in the gradually increasing demand which occurs with artificial pneumothorax.

The presence of a slight degree of laryngeal or intestinal involvement is also not a positive contraindication. Better results are now being obtained in the treatment of such lesions early in their course, but an advanced stage of the disease in either location would be a valid reason for not attempting collapse therapy.

*Complications.*—Various accidents and complications may arise during the course of compression treatment by artificial pneumothorax. These may occur at the time of operation or immediately after or later when the patient is up and about or even attending to business. Ordinarily the puncture of the parietal pleura by the needle for the purpose of introducing air is accompanied by no more shock than occurs when the chest is tapped for the removal of fluid. In both instances so-called pleural shock or pleural eclampsia may occur and be immediately fatal. This is, however, a rare occurrence as is gas embolism, which may also be fatal. Puncture of the lung does not necessarily result in serious consequences, but may be followed by hemorrhage or infection. Rupture of the lung may result from excessive air pressure especially in attempts to break down adhesions and be followed by a broncho-pleural fistula and empyema. Subcutaneous emphysema is of little significance but subfascial emphysema may cause considerable discomfort. The most frequent and serious complication is the occurrence of pleural effusion, which is said to occur in 50 per cent of cases. If it remains serous it is not withdrawn, as it helps to maintain

the compression. A copious effusion is, however, a serious complication and likely to result in the formation of adhesions which will necessitate discontinuance of the treatment. If the effusion becomes purulent, external fistulae may result and in some cases radical surgical operations will be indicated.

In the case of thoracoplasty some surgical shock is to be expected though it is surprising how satisfactorily sick tuberculous persons stand the operation. There may, however, be serious respiratory and circulatory distress and occasionally mediastinal flutter. During the first few days a "flare up" of tuberculous lesions elsewhere is possible and the patients may be quite toxic. Severe pain may result from dragging of the brachial plexus or involvement of intercostal nerves in tears.

Comparison of the two methods shows certain advantages and disadvantages of each. The present practice, and it is almost general, is not to use thoracoplasty until after attempts to secure satisfactory compression by pneumothorax have proved unsuccessful.

The induction of artificial pneumothorax is not accompanied by as much shock as thoracoplasty and does not produce much deformity. The compression is secured gradually, there is less danger of lighting up foci of disease in the opposite lung, and if these do become active the treatment can be discontinued. The compressed lung may be allowed to re-expand, providing the compression is not of long standing and the lung and pleura have not become too much fibrosed. On the other hand, while the operation of artificial pneumothorax is a simple procedure, gas embolism and pleural shock are real dangers, serous effusions are frequent and in many cases are followed by the formation of adhesions or empyema. Spontaneous rupture of the lung may occur from the stretching of adhesions or the breaking down of cavity walls, and be followed by rapidly fatal pleural infection.

Ignorant patients deceived by the satisfactory immediate results frequently discontinue treatment against advice. Once the gas is absorbed and the lungs re-expanded, adhesions form which prevent the resumption of the treatment and thoracoplasty is the only resource left for compression. Artificial pneumothorax compression should be continued for at least a year or two and on the other hand should not be continued too long a period. It is very difficult to tell when it should be stopped. As the fibrosed lung re-expands, the encapsulated lesions

may be torn open and become active again. If left too long the compressed lung cannot re-expand at all and will be of no use. A large empty pleural space will be left to eventually fill with fluid which may become purulent and require eventual thoracoplasty.

Although the more radical procedure of thoracoplasty upon tuberculous persons is distinctly a major operation, the new technic has made it remarkably safe, especially when done in several stages. It is certainly safer than attempts to tear adhesions by pneumothorax. While thoracoplasty once done is beyond recall, when it is done it is finished and the patient does not have to look forward to repetition of the treatment for a long period accompanied by the possibility of various more or less serious complications. The immediate risks in thoracoplasty from shock, postoperative pneumonia, etc., are much greater, but the lasting results may be better than in pneumothorax. The amount of compression produced by thoracoplasty is somewhat less, perhaps two-thirds that produced by complete pneumothorax, but the clinical results do not appear to be less satisfactory on that account. Some surgeons believe thoracoplasty to be the preferable procedure in most cases though few have yet had the courage to put their theory into practice. The operative mortality of pneumothorax is less than 1 per cent, that of thoracoplasty 2 to 10 per cent. The former procedure is now used to some extent in most sanatoriums. Paravertebral thoracoplasty by Sauerbruch's method has been performed about a thousand times, mostly in Europe, and over a hundred operations have been reported in America.

*Results.*—These naturally vary with the care exercised in the selection of cases and the skill shown by operators and consultants in the conduct of the treatment. All observers agree that the preoperative treatment and the postoperative care are most important factors in success. Saugman believes that the operations should be done only at the sanatorium. Sauerbruch returns his patients to the sanatorium as soon as possible. Neither compression method should be used except in close co-operation with those who have had experience in the care of tuberculous patients.

Reports indicate that the final results of the two methods in suitable cases are about the same, that is, roughly, 35 per cent cured, 30 per cent improved, and 35 per cent uninfluenced.

The number of cases suitable for compression is

estimated by Alexander<sup>1</sup> and Fishberg<sup>2</sup> from summaries of many reports as something under 5 per cent of all cases seen. Even at this low percentage Alexander estimates there are some 15,000 persons in the United States for whom surgical compression is indicated. Most of these are suffering from advanced disease and are doomed without it.

Collapse treatment has made it possible for men and women flat on their backs and suffering from severe toxemia to return to active life, to work and ask no favors from competitors, free from cough, free from expectoration, no longer disseminators of tubercle bacilli. If these men and women happen to be very much needed in the world by their families, the community or the nation, a continuation of their usefulness for a few or many years, as the case may be, is valuable public service.

The hazards and dangers are great enough so that compression therapy should never be undertaken lightly. It will always need expert hands and trained judgment. The technic of the operation of pneumothorax is so simple that any physician might learn it, but the risks during the long continued treatment are such that it ought never to be attempted except in association with trained tuberculosis workers. Any skilled surgeon with wide experience can do a thoracoplasty operation, but he would be unwise to attempt the management of a case demanding it without the co-operation of an internist with special training.

With these considerations in mind and under the conditions specified the risks are not so great that the treatment should be ever omitted in suitable cases. Compression has become so safe that the risks involved in not using it when indicated are not to be compared with the danger to the patient from the disease if it is not employed.

There is a very practical inference to be drawn from this new and startling development in medicine. A physician can no longer consider all advanced cases of tuberculosis as alike hopeless, nor excuse himself for lack of interest in those under his care, on the ground that nothing can be done. It is now incumbent on him to take advantage of the facilities for x-ray study by means of stereoscopic films now offered by the sanatorium and the out-patient departments of local hospitals as well as the tuberculosis services in these hospitals.

During the past two and a half years the writers have observed the application of compression treatment to 149 patients at the Manitoba Sanatorium<sup>2</sup>

and at Nopeming Sanatorium. In 134 of these, pneumothorax was attempted and some degree of compression was secured in this way in 107. Of the 107, twenty-one secured exceptionally good results, amounting in some cases to practical restoration to health for the time being, fifty-one were somewhat benefited and thirty-five relapsed and received no lasting benefit; eighteen have since died. All but two of the thoracoplasty cases were seen in Manitoba. Of the fifteen cases, four were very greatly improved, four showed considerable improvement and seven showed practically no improvement. Of these six have since died.

## SUMMARY OF PNEUMOTHORAX CASES

	Nopeming	Manitoba	Total
Compression attempted .....	54	80	134
No compression secured.....	15	12	27
Some compression secured.....	39	68	107
No lasting benefit .....	14	21	35
Somewhat benefited .....	18	33	51
Exceptionally good results .....	7	14	21

## PERCENTAGES

	Nopeming	Manitoba	Total
No lasting benefit .....	35.9	30.9	32.7
Somewhat benefited .....	46.2	48.5	47.7
Exceptionally good results ..	17.9	20.6	19.6
Total compressions secured..	100.0	100.0	100.0
	(39)	(68)	(107)

## COMPLICATIONS IN PNEUMOTHORAX CASES

	Nopeming	Manitoba	Total
Pleural shock .....	1*	0	1
Air embolism .....	0	2*	2
Pleural effusion .....	12	32	44
Empyema .....	5	8	13
Emphysema (sub-cutaneous) ...	2	0	2
Emphysema (deep) .....	0	2	2
Spontaneous pneumothorax			
(rupture of lung) .....	3	10	13

\* Not fatal.

## THORACOPLASTY

Number of cases .....	15
Very great improvement .....	4
Moderate improvement .....	4
No lasting benefit .....	7

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## COLDs AND THEIR TREATMENT WITH CHLORINE

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It was noted during the last influenza epidemic that influenza was rare among soldiers working in chlorinal plants while it was prevalent among others in the same locality and living under similar conditions. These observations led Colonel Vedder and Captain Sawyer to experiment with chlorine gas in the treatment of acute respiratory infections. The results of their experimental work was most encouraging and their report<sup>1</sup> caused great interest and laid the basis for the hope that finally a specific treatment for colds was available. The public was interested because every year a great deal of inconvenience, considerable disability and some serious consequences result from acute respiratory infections, and physicians were interested because patients are constantly coming to them for relief of these conditions, the treatment of which is most unsatisfactory.

Unfortunately, before the results of the treatment could be verified by other investigators, certain commercial houses began manufacturing various types of apparatus for the administration of chlorine in the treatment of colds and physicians began to be flooded with advertising literature making claims for the treatment and extolling the virtues of some particular type of apparatus. As Colonel Vedder has repeatedly stated<sup>2</sup> if one hopes to get consistent results with this form of treatment or even to give the treatment a fair trial, a definite and constant concentration of chlorine must be maintained in the atmosphere for at least one hour, a condition certainly not fulfilled by most types of apparatus which are on the market.

At the Students' Health Service of the University the greatest single problem with which we have to deal is the problem of acute respiratory infections; consequently, when Colonel Vedder's report appeared we immediately got in touch with him and with the Wallace and Tiernan Company, which made the equipment that he used, and inquired how

we could procure the necessary apparatus for the giving of treatments to large numbers of students. In reply, the Wallace and Tiernan Company offered to send us for experimental purposes the same type of apparatus as was used by Colonel Vedder in his experiments. We gladly accepted the offer and set aside a room to be used exclusively for the giving of these treatments.\*

The apparatus used was such as to give at all times a definite and constant concentration of chlorine in the room. A concentration of between .015 mgm. and .0175 mgm. of chlorine per liter of air, as recommended by Vedder, was maintained. As students were seen in the dispensary with colds, certain ones, chosen at random, were sent in to have chlorine treatments. The others were given various forms of medical treatments or no treatment and were observed as a control series. The students included in this series were treated between October 1, 1924, and March 1, 1925. The results of the treatments, both in the series which had chlorine and in the control series which had medical treatments or no treatment, were reported by the students themselves on cards sent to them a week after they had come in for treatment. These cards contained the following three questions: (1) How many days did you have a cold before treatment? (2) How many days did your cold last after treatment? (3) In your opinion was the treatment given beneficial?

The reports made on these cards were tabulated, summarized and analyzed. In Table 1 we have a general summary of the results, irrespective of the type or the duration of the infection. This shows that the percentage of recoveries within one day after treatment is greater in the chlorine than in the control series.

The percentage of recoveries in two days, however, is just as large in the control series as in the chlorine series. The same is true in regard to the recoveries after the second day. The table also shows that the percentage of recoveries within one day is higher if the treatment is given during the first three days of the cold than if it is given after the third day.

Table 2 gives an analysis of the results according to the part of the respiratory tract involved. It

\*A paper presenting more fully the results of this study was presented before the Minnesota State Medical Association on April 28, 1925, and through the courtesy of Minnesota Medicine was published in the Journal of the American Medical Association, May 30, 1925.

\*Note: It should be remarked that the Wallace and Tiernan Company gave every possible assistance in conducting these observations and appeared anxious only to get accurate information, whether or not the results would tend to promote the sale of their equipment.

TABLE 1  
SUMMARY OF RESULTS OF TREATMENT  
(A) Treated During First Three Days of Cold

	Total Cases	Cured in 1 Day		Cured in 2 Days		Cured in 3 Days		Cured in 4-7 Days		Cured in Over 7 Days		Not Cured at Report		% Cured 1-3 Days	% Cured 1-7 Days
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Chlorine .....	218	49	22.5	30	13.8	30	13.8	55	25.2	19	8.7	35	16.1	50.1	75.3
Medical .....	209	28	13.9	41	19.6	33	15.8	46	22.0	25	12.0	36	17.2	48.8	70.8

(B) Treatment Given After Third Day of Cold

Chlorine .....	207	34	16.4	41	19.8	35	16.9	39	18.8	26	12.5	32	15.4	53.1	71.9
Medical .....	183	21	11.4	30	16.3	35	19.1	51	27.8	18	9.8	28	15.3	46.8	74.6

(C) Summary of Results of All Treatments

Chlorine .....	425	83	19.5	71	16.7	65	15.2	94	22.1	45	10.5	67	15.7	51.4	73.3
Medical .....	392	49	12.5	71	18.1	68	17.3	97	24.7	43	10.9	64	16.3	47.9	72.6

will be seen that the largest percentage of cures in one day with chlorine occurred in rhinitis and that the poorest results were obtained in the generalized acute respiratory infections, not limited to any particular area. Of the cases of acute rhinitis that were treated within three days after onset, 27.3 per cent recovered in one day as compared to 8.9 per cent of the control series.

#### DISCUSSION

Every physician realizes that it is frequently difficult to determine accurately the value of one form of treatment as compared to another and that this difficulty is intensified when one is dealing with such self-limited diseases as colds. For this reason it was considered necessary, in an attempt to evaluate the chlorine treatment, to have, as a control series, observations on a series of persons with colds who were not given chlorine treatments. In the tables this control series is designated as having had medical treatment, but, inasmuch as the medical treatments were varied and for the most part merely symptomatic it is doubtful whether a control series without any treatment would not have shown very similar results. The large percentage of recoveries within a few days, as shown in the control series, illustrates the necessity of having such a series in any study of colds; for example, 47.9 per cent of those in the

control series recovered within three days after reporting to the Health Service and 72.6 per cent recovered within the first week. In this study there are 425 cases in the chlorine series and 392 in the control series.

An analysis of the results reported shows a certain margin of benefit from the chlorine treatments, but this margin is small. The best results were obtained in students with rhinitis; of these, 23.6 per cent recovered within one day after treatment with chlorine as compared to 6.7 per cent of the control series. In the entire group, 19.5 per cent recovered within one day after the chlorine treatment as compared to 12.5 per cent of the control series. However, at the end of the third day after treatment we find 47.9 per cent of the control series have recovered as compared to 51.4 per cent of the chlorine series. It should be noted that this small margin of benefit is the best that we were able to obtain giving the treatments under relatively ideal conditions, so it certainly seems that physicians who use apparatus which give less accurate and less uniform concentrations of the gas could not expect much in the way of results. On the other hand if the treatments are properly given, it would seem that our results are sufficiently encouraging to justify, at least, a continuation of the treatments with a further study of the results.

TABLE 2  
RESULTS OF TREATMENT IN VARIOUS TYPES OF ACUTE COLDS  
Total of All Treated

Diagnosis	Total Cases	Cured in 1 Day		Cured in 2 Days		Cured in 3 Days		Cured in 4-7 Days		Cured Over 7 Days		Not Cured		% Cured in 3 Days	% Cured 1st Week
		No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Acute Respiratory Infection	Chl. 130	21	16.0	21	16.0	19	14.6	32	24.6	13	10.0	24	18.4	46.6	71.2
	Med. 166	27	16.3	30	18.1	27	16.3	48	28.9	13	7.8	21	12.6	50.7	79.6
Rhinitis	Chl. 203	48	23.6	28	13.8	36	17.7	44	21.6	18	8.8	29	14.0	55.1	76.7
	Med. 107	7	6.7	22	21.5	22	21.5	23	22.5	11	10.8	17	16.6	49.7	72.2
Laryngitis															
Tracheitis	Chl. 42	5	11.8	10	23.8	3	7.1	6	14.3	10	23.8	8	19.0	42.7	67.0
Bronchitis	Med. 33	1	3	3	9.1	7	21.2	7	21.2	8	24.2	7	21.2	33.3	54.5
Pharyngitis	Chl. 50	9	18	12	24.0	7	14.0	12	24.0	4	8.0	6	12.0	56.0	80.0
Tonsillitis	Med. 91	14	15.4	16	17.6	12	13.2	19	20.9	11	12.0	19	20.9	46.7	67.1

## CONCLUSIONS

1. Approximately 50 per cent of people with colds will recover within three days, and 75 per cent within a week under little or no treatment.

2. Every study concerning the value of any treatment of a self-limited disease should include a control series of cases.

3. Any beneficial results from treatments with chlorine gas are experienced within the first day after the treatment.

4. Of patients with rhinitis 23.6 per cent recovered within one day after treatment with chlorine as compared to 6.7 per cent of the control series; and 19.5 per cent of the entire group recovered within one day after treatment with chlorine as compared to 12.5 per cent of the control series.

5. The percentage of recoveries within three days after treatment was almost as large in the control series as in the chlorine series, 47.9 per cent as compared to 51.4 per cent.

6. It is doubtful whether the chlorine treatment can be expected to give any beneficial results if it is administered by methods which do not give a definite and uniform concentration of the gas.

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## DISCUSSION

Edward B. Vedder, Lt. Col. M. C., Edgerwood, Md.

April 9, 1925.

Dr. H. S. Diehl,  
Director, Students Health Service,  
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Minneapolis.

Dear Dr. Diehl:

I cannot be present to discuss your paper, as I am leaving Edgewater Arsenal for Manila June 1, and I have many details to attend to prior to my departure. I am greatly indebted to you for letting me see your paper. It is perfectly evident that you have made every effort to give the method a fair trial. I am naturally sorry that your results have not been better, but even so it appears to me that they have been sufficiently good to warrant further trial.

I am unable to give a precise explanation for the discrepancy in our results, but may make the following comments \* \* \*:

1. According to my opinion you have altogether too many cures attributed to medical treatment and much too few attributed to chlorine.

2. I note that the results of treatment in both instances were obtained from a questionnaire sent out at the end of the week. I think it quite possible that many individuals

even of high mental attainments may give erroneous replies under these circumstances. Our results were obtained from personal conversation with the patient, the next day after each treatment, when the event was fresh in his mind. Under these circumstances it is a rare thing for us to find a patient who does not claim some improvement following each treatment.

3. According to my belief, there is no medical treatment that will cure a cold, although it is quite possible to alleviate its symptoms. I am, therefore, unable to explain your high percentage of cures by medical treatment, and am inclined to attribute them to some confusion on the part of those answering the questionnaire as to the distinction between actual relief afforded by medical treatment and a cure. Thus a sedative cough mixture will relieve the irritation of a cough and at the end of a week the patient might report that it had cured him, since the pain disappeared, although the cough may have actually persisted.

4. With regard to the chlorine treatment, I can give at least one sufficient reason for the discrepancy between our figures. Our policy has been to treat a case as early as possible, usually on the first or second day of a cold. If the patient was cured with one treatment it was so recorded, but if not, on the next day he received a second treatment. If not cured on the second day, he received a third treatment. It has been our experience that when treated in this way very few colds survive the third treatment without at least great improvement. A very high percentage are absolutely cured, meaning that all symptoms of a cold have disappeared entirely.

Now, from your table, it appears that of the total of 426 cases treated by chlorine, 335 had only one treatment. Of these, 68, or 20 per cent, were cured in one day. The remainder of this 335, or 267 cases, received no further treatment and simply recovered in the natural course of events. Had these 267 cases been given a second or even a third treatment, as we do, the percentage of cures would have been far higher, as is shown by the fact that of the 65 cases who took two treatments, 41.7 per cent were cured in three days, and of the 26 cases taking three treatments, 42.3 per cent more were cured in three days. \* \* \*

DR. J. A. MYERS, Minneapolis: Since Dr. Diehl installed equipment for giving chlorine treatments at the University Health Service, I have been very much interested in this subject and have followed closely his work. I know that all of his work has been done in a very scientific manner and with an aim first to aid the student suffering from respiratory infections and second to contribute information to the medical profession which may be of great benefit to the public.

Last fall, after it had become quite generally known that chlorine was being used in the treatment of certain respiratory diseases and after Dr. Diehl had made a considerable number of observations at the Students' Health Service, there developed among private patients considerable demand for chlorine treatments. Inasmuch as the report by Vedder and Sawyer was very favorable, the members of the Students' Health Service staff, after considerable experience, spoke favorably of it, and there seemed to be no harm resulting from its use, I installed the Wallace and Tiernan equipment for giving individual treatments. This

treatment was recommended to patients suffering from acute infections of the upper respiratory tract. Patients who inquired regarding the value of chlorine treatment in chronic bronchitis were told that its greatest value seemed to be in the beginning of acute conditions and that it probably would not be of great value in chronic conditions. Several patients suffering from bronchial asthma, having learned of the chlorine treatment, hoped that at last a cure for their troubles had been discovered. Some insisted that they be permitted to try it. However, because it was already known that chlorine is contraindicated in asthma and hay fever I refused to administer it to any such patients. One day a young man came in when I was not in the office and told the nurse that he had a severe cold and wanted a chlorine treatment. About fifteen minutes later when I came in the nurse stated that this patient was taking chlorine treatment. I immediately recognized the name as that of a person who had in the past been treated for bronchial asthma. Although he had been free from asthma for a long time I told him we would have to stop the treatment at once for fear of causing a recurrence of the asthma. Although he had inhaled chlorine gas for only fifteen minutes he suffered from asthmatic attacks that night.

Among the patients suffering from chronic bronchitis only a small percentage were of the opinion that they received any benefit. However, the others did not feel any worse.

Among the patients suffering from acute upper respiratory infections, about 75 per cent were of the opinion that they were improved. Some of these patients became very enthusiastic over the treatment and returned during the winter every time they developed symptoms of colds. Most of the patients who were of the opinion that they had not been benefited by chlorine inhalation did not begin their treatments until the disease was of several days' duration.

Although my experience with chlorine gas in the treatment of respiratory infections is much more limited than that of Dr. Diehl, I firmly believe that it is well worth while in the treatment of certain conditions, particularly acute upper respiratory diseases (never in asthma or hay fever) during the first and second days of their existence.

DR. E. D. ANDERSON, Minneapolis: I wish to discuss this paper simply from the standpoint of treatment of whooping cough. I think that there is practically no condition which we meet in children where we will hail with more pleasure a treatment which is satisfactory than we will in the treatment of whooping cough. I think we have all had the experience that at best, even in the older children, it is usually a long, tedious disease, and in the small children and babies it is often a very serious thing. I, myself, feel that medication is of practically no value. X-ray therapy in some cases seems to help and in many of them doesn't seem to help at all.

When this work of chlorine gas originally came out, in talking to Dr. Diehl he suggested that we try it on whooping cough cases, and I was very anxious to do so. We had about four or five that I knew about which were treated by Dr. Diehl, and on those in the beginning it looked as if the results were very encouraging. I got an apparatus installed in my office. I have only had about twenty-five cases which I have treated. In the first five or six cases, I thought that they were greatly benefited by it. But then,

just as it happened with medication, with x-ray, and with vaccine therapy, at least in my experience, I soon lost my enthusiasm. After the first four or five I had five or six that were just as bad when they got through as at the beginning, and that has been my experience with most of the rest of them.

I would not say that the chlorine gas is of no value in whooping cough, but in the limited experience that I have had in this number of cases I would say that it is of no more value than the other procedures which we are now using. Personally, I feel that possibly the best results I obtain are in the giving of vaccine early. In these cases of whooping cough treated with chlorine gas, some of them were started at the very beginning of the cough, none of them had less than three treatments and some of them had as many as eight, and I feel that those who did get the best results were those which were started rather early. Just as with vaccine, when it is started after the whoop has developed, I feel that it is of practically no value. So, in conclusion, I would say that in the small experience I have had I am not particularly enthusiastic about the results from chlorine gas in the treatment of whooping cough.

DR. H. S. DIEHL (closing): With Colonel Vedder's statement that in this report too many cures seem to be attributed to medical treatment, one cannot disagree if the terms used in the tables are taken literally. However, I attempted to explain that the group given medical treatment was considered as a control series and that most of the recoveries probably should be considered as spontaneous.

The accuracy of the information obtained by having patients report on blanks mailed to them has been questioned and justly so. We used it because we did not know of any definite objective criteria upon which we could judge whether or not colds were improved. In a small series the errors of this method might be relatively large, but, inasmuch as the same method was used to obtain information from the control series as from the chlorine treated series and as both groups were large, it should be possible to compare the results in the two groups with a fair degree of accuracy.

Col. Vedder was able to give second and third treatments to soldiers who did not recover following the first treatment. Had we been able to do the same probably a larger percentage would have been benefited by the treatment. On the other hand, it should be noted that forty-eight per cent of our control series recovered within three days. It seems, also, that the procedure we followed more nearly approaches that which would be used by physicians in practice; that is, we requested patients to come back for further treatments rather than compelled them to do so.

In closing, I would say that our results certainly are not absolutely negative as were those reported by Dr. Harris of the New York City Board of Health. Particularly in acute rhinitis we found definitely beneficial results from chlorine treatment; of the patients with this condition about one out of four recovered in one day with chlorine, while of the control series only about one out of fifteen recovered in one day. By the end of three days, however, apparently almost as many will have recovered without chlorine as with it.

# MINNESOTA MEDICINE

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VOL. VIII JULY, 1925 No. 7

## EDITORIAL

### Case Reports

Medical research and the specialties have their own mediums of expression in journals devoted to the special fields of medicine. The Journal of the American Medical Association covers a broad national field. But the special function of a state journal is the publication of medical work being done more especially in the state concerned.

There is no more valuable or instructive way of reporting medical work than by the case report. The value of the study of a particular case has long been recognized in undergraduate medical teaching. The clinical exposition of cases has become more and more popular in medical society meetings. Publication of case reports, however, has not kept a corresponding pace.

The value of the case report is well expressed in one of the articles\* recently published by Drs.

\*Simmons, Geo. H. and Fishbein, Morris: The art and practice of medical writing. Jour. Am. Med. Assn., Apr. 4, 1925, 84, 1043.

Simmons and Fishbein, former and present editors respectively of the A. M. A. Journal, as follows:

The foundation of clinical medical literature is the case report, a species now becoming, for some unknown reason, almost extinct. One cause, given by the editor of a Swedish medical periodical, is the fact that the scientific level of our profession has risen so much in recent years that a physician hesitates to report an interesting case simply as a case report; he thinks he must make an exhaustive survey of the literature. Instead of a brief, practical report, he submits an unnecessary exhaustive review, which few, if any, care to read. Often a mass of details, including unimportant, irrelevant and negative findings, is presented without regard to clearness of expression. Usually, if the historical review appears to be unnecessary and the case is an interesting one, the author should simply publish his case report and omit the review of the literature. Clinical reports, made with judgment and with the correct appreciation of relative values, are always welcomed by both editor and reader.

These authors proceed to describe the technic of the case report and emphasize the desirability of the narrative style and the elimination of all unnecessary data.

Some case reports are nothing more or less than transcriptions of hospital records. The irrelevant data only obscure the picture of the case and the reader is likely to give up in disgust.

Such reports indicate the laborious method of attack too often employed in arriving at a diagnosis. Instead of thoughtfully following the leads the diagnosis is reached through a method of exclusion. Such a method corresponds to taking down the motor each time the engine won't go.

Appreciating the value of case reports, MINNESOTA MEDICINE some months ago established a section devoted to their publication. There is a vast amount of valuable medical material not only in the municipal hospitals, but also in private practice, which is, medically speaking, going to waste. Unusual cases, good and bad therapeutic results, etc., merit publication and are valuable to the readers of this journal.

We wish to emphasize the desirability of publication of case reports and urge that they be submitted for publication.

### Libraries and Hospitals

Elsewhere in this number appears a short article on the Hospital Library Service in Minnesota by Miss Perrie Jones, kindly written upon request for

**MINNESOTA MEDICINE.** Most of our readers do not realize the extent to which this work is being carried on in Minnesota.

It is strange that the need for some such agency has never before been appreciated. The organization of the present activity along this line is a result of experience during the World War and may be charged to the small credit side of the war account.

Patients with acute illnesses have little need for library facilities. Those confined with chronic illnesses, however, find time heavy on their hands and the companionship of books helps to while away the tedious hours.

It is to be hoped that attention being called to the needs of patients for reading material, hospitals without library facilities will call upon the libraries for this service.

Similarly the war gave an impetus to the development in hospitals of opportunities for artcraft and handiwork among the patients. This work should receive more attention than it has in the past. The occupied human being is, as a rule, the happier, and mental contentment is conducive to physical recovery.

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### Birth Control

The subject of birth control is rapidly assuming large proportions in the minds of the people. Sociological workers have shown that the race will inevitably deteriorate if the unfit are allowed indiscriminately to reproduce their kind. Economists have shown that the increase of population is rapidly gaining upon the food supply of the world. All are agreed upon the desirability of some means for improving the race, but how it best can be done is a problem which has not yet been solved.

It is estimated that the agricultural area of the United States will produce food sufficient to support a population of 160,000,000 people. At the present rate of increase of the population, this maximum may be reached in 1960, unless other food materials are found. The time will have arrived, which Malthus predicted over one hundred years ago, when food supply is inadequate to feed the population. War, pestilence and famine are the means usually operative in restoring the balance.

The laity seems to think that the doctors possess a secret means of birth control. This is a delusion. We are aware of no sure method of regulating birth. If we did possess such a knowledge, it would be very difficult to know how to apply that knowledge with wisdom and discrimination. Who is going to decide who is fit and who is unfit to propagate his kind? Procreation is regarded as an inherent right of every individual. This idea is supported by religious teachings of ages. While it may be contended that the right to procreate is limited by the advantage to society, and that the religious command to increase and multiply is scientific heresy, it is a fact that in the present state of public feeling, no efficient method of birth control could be enforced, no matter how desirable it might be. We have not yet arrived at standards sufficiently discriminating to determine who are the physically and mentally unfit, and who are the fit. At the same time, education of public thought upon this important question is urgently necessary.

A. S.

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### Medical Defense

A recent bulletin has been issued by the secretary of the Minnesota State Medical Association calling attention to the radical changes instituted at the April meeting of the House of Delegates of the Association in the matter of medical defense. After June 27, 1925, at which time the new bill limiting the statute of limitations for malpractice suits to two years goes into effect, the Association ceases to defend its members. After this date it will be necessary for each member to arrange for his own medical defense.

It is not our purpose to advise members where and how to carry their protection. Rates and degree of protection vary and what suits one member may not suit another. This much can be said—the committee of the Association thoroughly investigated the proposition of medical defense and the Council has made arrangements for group insurance at a special rate, which it recommends. Although the Association is not bound to assure the company with which arrangements have been made, any specified number of policies, the success of any group arrangement is likely to depend in the future on how the members respond.

## MISCELLANEOUS

HOSPITAL LIBRARY SERVICE IN  
MINNESOTA

PERRIE JONES  
Hospital Librarian  
*St. Paul*

In February, 1921, through the interest of two or three St. Paul citizens and the co-operation of the Amherst H. Wilder Charity and the Public Library, came the beginnings of hospital library service in the state. The idea of having a carefully chosen collection of books for the use of patients, in the belief that certain reading for certain patients is beneficial, is not altogether new. Some twenty years ago the value of this service had been demonstrated in the Massachusetts General Hospital and in the McLean Hospital (mental), at Waverly, Massachusetts. However, the war gave this work the impetus that was needed to bring it to the general attention of hospital and library people.

The service in Minnesota began in the United States Veterans' Bureau Hospital No. 65 (Aberdeen). That library today, like all other Veterans' Bureau hospital libraries, is under the supervision of Miss Elizabeth Pomeroy, a trained librarian and a federal employe at Washington, and is under the direct care of a local federal librarian.

St. Paul's hospitalized sick, approximately 2,000, today have access to the public library as do any other citizens. In addition to the special collection of books held for the hospitals, the entire resources of the Public Library are at the service of all those within the four walls of the hospital, whether orderly or chief of staff, scrub woman or superintendent of nurses. Internes, bookkeepers, elevator men, nurses, all may use the books. Records show that each sick person reads on an average twenty books during the year. Deducting the number in any hospital who obviously do not read, such as babies, the blind, etc., it is easy to see that the actual average is much higher.

Very soon after the work was started in St. Paul, Rochester, Duluth, Minneapolis and New Ulm followed. In Minneapolis, twelve hospitals are served, in St. Paul nine, in Rochester five, in Du-

luth two, in New Ulm two. In each case the work is done by the Public Library, except in New Ulm, where the Public School Library takes its place. In Rochester the work originally started under the Social Service Department of the Mayo Clinic, but was later turned over to the administration of the municipal library.

Books furnished by the service in Minnesota have been read in eighteen different languages and on almost every subject under the sun, from batik and bolshevism to better babies, from treatises on the steel square to Camoen's lyrics in the original Portuguese, from Bob Ingersoll's flings to careful searchings on evolution. The bedridden have traveled from Formosa to the land of Beasts, Men and Gods; they have followed Stefansson over the Canadian Arctic and Wallace through Labrador. Rawlinson and Powell have taken them to the Near East; they have been lost and imprisoned on the Red Desert and have all but died on a 1,700-mile trip in an open boat in the Indian Ocean. The gory glories of seal hunting are theirs, the greatest stage triumphs, the most inspiring of biographies.

To meet the demand that is sure to come from this specialized form of library work—there are thirty-seven states which boast its presence—there has been adopted at the University of Minnesota a five-year course for hospital librarians. The first three years are strictly academic, the fourth offers a straight library course, and the fifth the specialized work, which includes courses in Preventive Medicine; Mental Hygiene; Ethics of Nursing; Principles and Practice of Medical Social Service in Clinic, Hospital, and Home; Relationships of Hospital to Social Work; Occupational Therapy; Hospitals and Hospital Economics; Therapeutic Value of Reading; Nervous and Mental Conditions; Hospital Library Administration; Literature for Use of Hospital Groups; and Field Work in Hospital Library. So far as we know this is the only place in the country where such a course is offered.

Libraries are being increasingly converted to the undertaking of this service, but they need very badly the encouragement of the hospitals. Hospitals have every right to ask for such service, partly, if not wholly, at the expense of the library, and they will get it much sooner if the demand comes from them.

Should any hospital or medical man want to know more about the extent of this work or of its

possibilities, let him go to Kathleen Jones' book on the Hospital Library, with its bibliography, published by the American Library Association in Chicago, or turn to the December 15 number of the Library Journal, which has an admirable paper by Dr. William Russell, medical director of the Bloomingdale Hospital in White Plains, New York.

Very briefly, the purpose of such work, as far as the patient is concerned, is three-fold: to assist in the relief, readjustment and rehabilitation of the hospitalized sick. The next step should be to adapt the same methods to Public Health work, so that whatever benefits accrue may not be confined to hospitalization.

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## OBITUARY

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### DR. FRANK RESSLER WEISER

Dr. Frank R. Weiser of Windom died suddenly Friday, May 22, 1925, while on his way home from a meeting of the Southwestern Medical Association. Death was due to an attack of apoplexy.

Frank Ressler Weiser was born at Sunbury, Pennsylvania, November 10, 1865. His early education was received in the public schools of Millersburg. Later he took a course in pharmacy at the Philadelphia State College, following which he entered Jefferson Medical College, receiving his degree of M.D. in 1891 from the latter institution.

Following his graduation, Dr. Weiser practiced for three years at Williamstown, Pennsylvania, and in the spring of 1894 moved to Windom, Minnesota, where he practiced until the time of his death.

Dr. Weiser was active in civic affairs in both his home city and county. He served as chairman of the county Red Cross board during the war and had been chairman of the Republican county organization for several years. From 1915 to 1921, Dr. Weiser served as a member of the Board of Education for the Windom schools. He was prominent in medical circles of the state and was Councilor of the Sixth District of the Minnesota State Medical Association at the time of his death. Among the various organizations in which he held membership are the Masonic Order, A. F. and A. M.; Windom chapter No. 48, R. A. M.; Windom Commandery, No. 39, K. P.; 32 degree Scottish Rite, Valley Minneapolis; Zuhrah Temple, Mystic Shrine. He was also a member of the Royal Arcanum, W. O. W. and the Woodmen Lodge.

Dr. Weiser is survived by his wife, Mrs. Jeannette Weiser; a son, Dr. Conrad Weiser, of Minneapolis; a daughter, Miss Helen Weiser, two brothers and two small grandchildren.

## REPORTS AND ANNOUNCEMENTS OF SOCIETIES

### REPORT OF CONVENTION—NATIONAL LEAGUE OF NURSING EDUCATION, MINNEAPOLIS, MINNESOTA, MAY 25 TO MAY 29, 1925, INCLUSIVE

By MISS ELEANOR MOCK

Class of 1925

Ancker Hospital

Words cannot express my sincere thanks and appreciation for the opportunity that was mine when you sent me, as one of your delegates, to the convention of the National League of Nursing Education. It will be my pleasure now to tell you a few of the benefits which I derived from this meeting.

First of all, excluding all sessions, lectures and social activities, to me the most striking feature was the excellent type of idealistic woman with which we associated. One could not help but be inspired, and feel wealthier for having been in their presence.

The opening event was an address by Miss Laura R. Logan, a true model of the real nurse and woman and also president of the league. The impressions made there will never be forgotten.

The first business of the convention was the reports of the various committees. The one on nomenclature was especially interesting and characteristic of the nurse.

Reports of the Advisory Council stated that in the struggle for the great need of higher education in the nursing field, no states had been idle but all were co-operative. Although there are today 100,000 graduate nurses in the United States, the problems that confront all are the same, namely:

1. The insufficient number of private duty nurses.
2. The high cost of nursing service.

To further education for the nurse, opportunities for summer courses and institutes are at hand. An institute as described by Mary C. Wheeler, is a place to meet new friends, new faces, and learn new things. The first institute was held years ago. The idea has become very popular since, for this year fifteen will be held. Summer courses are given yearly for a period of six weeks, during which time particular stress is laid upon English and the basic or social sciences—biology, psychology and sociology.

Through the courtesy of the Minneapolis Commerce Commission, a splendid fifteen minute drive around the beauty spots of the Twin Cities was enjoyed. Then we, too, were privileged to attend the tea at the A. R. Colvin residence on Davern Hill Top.

A helpful demonstration on the care of the isolated patient was given by the student nurses at the Minneapolis General Hospital. Their routine is as follows:

The room with utensils is in readiness for the patient on his arrival. His clothes are removed by a nurse in an adjoining room. He is wrapped in a sheet, and taken to his bed on a cart. The sheet is lifted and the patient placed in bed, the nurse still being very careful not to

touch the patient, or the inside of the sheet, thereby keeping free from contamination. Then she proceeds to complete the bed, and take the patient's temperature. Now, the best technique having been applied, the nurse may, without spreading infection, proceed to care for a patient afflicted with a different disease. No orderly is permitted to enter the room. It is the nurse's duty to keep the floor clean. Terminal fumigation is similar to ours.

Excellent lectures on the care of the isolated patient were given by specialists of contagious hospitals. The most important needs in the care of these patients are:

1. Adequate preparation by study and actual experience.
2. Human sympathy.
3. Refinement.
4. Culture.

The spread of communicable diseases is prevented by using every available method and aseptic technique—medical asepsis as well as surgical is required. In the past progress in checking the spread of such diseases was slow because of fear. This can be overcome by knowledge and education as to the proper care of such patients.

The unit system was mentioned by which patients afflicted with diseases of a different nature are kept in the same room. Beds are five feet apart. Very few cross infections are reported. As the patient convalesces, he is moved to a larger unit of twelve beds. With the exception of measles and chickenpox, during the first week all cases may be kept together. In Rhode Island at the Providence City Hospital even postoperative laparotomy cases are on the same floor. It is believed that no air transmission causes disease except by "forced expulsion."

Patients are not allowed to touch the walls or door knobs, but are permitted to go out on the lawn. After termination of the case the mattress is aired for six hours and only after typhus fever, smallpox and deceased patients is sterilization resorted to.

No Schick tests are given.

After a positive Dick reaction, three small doses of Dick's serum are given (one a week).

To children exposed to measles 30 c.c. of a convalescent measles serum are given.

Scarlet fever serum is also given to all acutely ill patients.

Care of the tuberculous patient was explained by Miss Densford, of the Illinois Training School. To me her opening sentence was very striking. She said, "Like the poor, tuberculosis is always with us."

Five factors in the control of tuberculosis are:

1. Education of the public, the patient and the nurse by teaching the principles of hygienic living and health.
2. Economic factor by providing in the home an adequate income for the family to live up to the regulations given.
3. Nursing care, which includes tending to the patient's spiritual needs as far as possible and making him contented and happy.
4. Medical supervision.
5. Confidence of the patient in the doctor and the nurse caring for him.

To break the monotony of technical lectures, one which was rather humorous was given by Dr. Allan, of Michigan, on the "Need for Play."

He said: "When we work we do all we *have* to, and when we play we do all we *can*." He also advised us to exercise all the joints of our body so that we won't ossify into any particular form.

The lecture I enjoyed most was rendered by Miss Lomen, who is not a nurse, but a teacher of the teachers of little children. Her subject was based on the "New Methods in Teaching." During the last decade there has been a great improvement in the higher education of nursing. Education really means the development of the individual. It affords self-realization, gives a spontaneous free development of interest and a splendid control discipline. It comes best through freedom and initiative. Its aim is:

1. To help the individual to pull his own weight in the work of life.
2. It seeks to make a conscious attempt to progress.
3. It gives the individual an appreciation of life's values.
4. It helps us to leap progressively into ever widening and deepening experiences.
5. It aims to develop in the individual a capacity for growth.
6. It tends to help the student to lead an inspiring and beautiful life.

The teacher stimulates the student by setting problems, citing her own experiences as examples, telling of the riches in store for those who choose to be intellectual. To be so, you must "pull together" with all learning and education, have life-abiding interests and power to accumulate knowledge through wide reading, travel and study. You must have an aptitude for study and form your ideals before you begin. Then, too, you must be willing to be forgotten.

Other qualities of both teacher and student are:

1. Honesty of purpose.
2. Singleness of purpose or specialization.
3. Open mindedness.
4. Intellectual flexibility.
5. Cheerfulness to assume the responsibilities of your own acts.

It was the student's pleasure to attend a luncheon at the University Hospital, at which time we also visited the hospital. My decision was this: "There's no place like home."

Delegates from Cook County and various state hospitals visited our hospital. They enjoyed it immensely and marveled at the beautiful scenes and splendid management of the place.

Results of the convention were stimulating, broadening and profitable. The need for higher education was most stressingly stated; its aims and rewards were so fully and beautifully rendered that not one having heard these marvelous characters speak could be otherwise than truly inspired to do bigger and better things.

"Aim high and hitch your wagon to a star."

Don't be like Johnny who was "about to begin to get ready to *start*" but start and do it now. There's no time like the present.

# INTER-STATE POSTGRADUATE ASSEMBLY OF AMERICA, ST. PAUL, MINNESOTA, OCT. 12-16, 1925

The meeting of this association, originally known as the Tri-State Medical Society, will take place this year in St. Paul under the auspices of the Ramsey County Medical Society.

Extensive arrangements are under way for the entertainment of this society and the preliminary list of University professors who will appear on the program has been announced. This list includes such well known members of the profession as Dr. George J. Heuer, Dr. Walter B. Cannon, Dr. Milton J. Rosenau, Dr. Albert J. Ochsner, Dr. H. B. Cushing, Dr. A. Mackenzie Forbes, Dr. Hugh Cabot, Dr. John P. Lord, Dr. Joseph B. De Lee, Dr. Allen B. Kanavel, Dr. John B. Deaver, Dr. Dean Lewis, Dr. Rollin T. Woodyatt, Dr. George W. Crile, Dr. Samuel Clark Harvey and Dr. William H. Wilder.

## LYMANHURST STAFF MEETING

The regular meeting of the Lymanhurst staff will be held at the Lymanhurst School, 1800 Chicago Avenue, Minneapolis, Tuesday, July 28, 1925.

Following is the program of the evening:

*Some points in the physiology of respiration.* Dr. F. H. Scott, Professor of Physiology, University of Minnesota.

*Investigation on development and size of the heart in children by teleroentgen method.* Dr. Thomas Ziskin.

All persons interested in tuberculosis are invited to attend these meetings and participate in the discussions.

## SOUTHWESTERN MINNESOTA MEDICAL SOCIETY

The forty-second annual meeting of the Southwestern Minnesota Medical Society was held Thursday, May 21, 1925, at Windom, Minnesota.

Dr. W. J. Taylor, Pipestone, Minnesota, was voted a life member of the Southwestern Minnesota Medical Society and was presented with a fountain pen. He is the only surviving Charter Member of the Society.

A dinner and smoker preceded the scientific program, which was given at eight o'clock in the evening and included the following:

President's Address.....Dr. J. M. Hilger, Iona  
Melena neonatorum.....Dr. Thomas Lowe, Pipestone  
Postoperative treatment of acute general peritonitis....

Dr. W. H. Halloran, Jackson  
Encephalitis, the sequelae and a short résumé of the disease.....Dr. E. M. Hammes, St. Paul

Discussion.....Drs. Wm. Piper and L. L. Sogge  
Legislation.....Dr. H. M. Johnson, Dawson

## BLUE EARTH VALLEY MEDICAL ASSOCIATION

At the annual meeting of the Blue Earth Valley Medical Association, held at Fairmont, Thursday, May 28, 1925, the following officers were elected: President, Dr. M. D. Cooper, Winnebago; vice president, Dr. F. Silvernail, Elmore; secretary-treasurer, Dr. R. C. Hunt, Fairmont. Drs. J. A. Broberg, Little Falls; F. N. Hunt, Fairmont, and H. P. Johnson, Fairmont, were elected trustees of the Association.

Following the business session a dinner was served at the Hotel Fairmont at 6:30 o'clock to members and their guests. The program of the evening included the following papers:

Diphtheria immunization.....Dr. G. H. Luedtke, Fairmont  
Dislocation of the hip: original method of reduction of backward dislocations.....Dr. J. J. McGority, Easton  
Pulmonary embolism.....Dr. S. Herman, Welcome  
Health examinations.....Dr. A. J. Henderson, Kiester  
Hay fever.....Dr. J. H. James, Mankato

## OF GENERAL INTEREST

Dr. G. E. McCann has moved his practice from Onamia, Minnesota, to Fargo, N. D.

Dr. F. J. Bohland of Belle Plaine recently returned from California much improved in health.

Dr. E. C. Rosenow has received the honorary degree of Doctor of Laws from Park College, Missouri.

Dr. James Fleming of Cloquet is taking the summer course in tuberculosis at the Trudeau School, Saranac Lake, N. Y.

The Royal Spanish Academy of Medicine conferred a degree on Dr. C. H. Mayo, Wednesday, May 27, at a meeting in Madrid.

Dr. H. P. Fischer of Shakopee is recovering from injuries resulting in a fractured arm received during the windstorm, June 2.

Dr. Charles Sheard, head of the Physics Department of the Mayo Clinic, has been elected a Fellow of the American Physical Society.

Dr. R. W. Adams, formerly of Barron, Wisconsin, is now engaged in a general medical and surgical practice at Montevideo, Minnesota.

Dr. Alex E. Brown of Stillwater has become a permanent member of the staff in the diagnostic service of the Mayo Clinic, Rochester.

Dr. Granville S. Delamere of the Mayo Clinic, Rochester, is now located in Berkeley, California, where he will continue the practice of medicine.

Dr. F. H. Buck of Shakopee has returned from Boston, where he took a four weeks' postgraduate course in pediatrics at Harvard medical school.

Dr. P. P. Vinson of the Mayo Clinic, Rochester, has received the honorary degree of Doctor of Science from Davidson College, North Carolina.

Dr. W. E. Sistrunk, Rochester, presented a paper on "Surgery of the Colon" before the annual meeting of the Georgia State Medical Association.

Drs. W. F. Braasch, H. C. Bumpus, and E. P. Cathcart, from the Mayo Clinic, attended the meeting of the American Urological Association in St. Louis from May 21 to 23.

Dr. W. J. Mayo gave an address at the meeting of the South Dakota Medical Association at Sioux Falls on "Studies in physiochemistry in relation to clinical medicine."

Dr. A. E. Sohmer of the Mankato Clinic is taking the Interstate Clinic Tour to Europe. He presented a paper

on the subject of "Urology in Surgical Differential Diagnosis."

Dr. G. B. Eusterman and Dr. H. Z. Giffin sailed May 23 for England to attend the meeting of the Inter-State Postgraduate Assembly in London and to tour the British Isles and France.

At the meeting of the American Association of Genito-Urinary Surgeons, held in Washington the first week in May, Dr. W. F. Braasch of Rochester was elected president for this year.

Dr. C. O. Rosendahl, Professor of Botany, University of Minnesota, gave a Mayo Foundation lecture in Rochester, May 21, on "The geographical distribution of hay-fever plants in Minnesota."

According to a recent communication received from Dr. Wilmer Krusen, Director of the Philadelphia Department of Health, 150 cases of smallpox occurred between January 1 and May 1. Among these were 18 deaths.

Dr. Arthur H. Pedersen and his mother, Mrs. J. Pedersen, of St. Paul, have left for New York, from which port they have booked passage on the Olympic for Europe. Dr. Pedersen will continue his studies in medicine while abroad.

Dr. Gerald R. Maloney of Belle Plaine has announced his retirement from medical practice following a period of fifty years' service as a "country doctor" in Scott county, Minnesota. Dr. Maloney came to Belle Plaine October 10, 1875.

Dr. and Mrs. H. J. Lloyd of the Mankato Clinic are in the East, having attended the American Medical Association meeting at Atlantic City. Dr. Lloyd is attending various clinics and doing other postgraduate work. They are motoring through.

Dr. R. D. Carman, Rochester, sailed for Europe after attending the meeting of the American Medical Association. He will travel through Germany and France and will attend the meeting of the International Congress of Radiology in London the first of July.

Dr. Verne C. Hunt, Rochester, has returned from attending medical meetings in the West. He read papers before the Arkansas Medical Society, the California State Medical Association, the western branch of the American Urological Association, and the San Diego County Medical Society.

Kaiser Wilhelm Institute, Berlin, Germany, will be represented on the faculty of the University of Minnesota during the coming summer session by Dr. Herbert Freundlich. Dr. Freundlich is a foremost authority on colloid chemistry and is one of the pioneers in the study of that subject.

Dr. Robinson Bosworth, Executive Secretary of the Advisory Committee of the State Sanatorium for Consumptives, will sever his connections with that organization on July 1 and begin his new duties as Superintendent and Medical Director of the Rockford Municipal Sanatorium, Rockford, Ill.

Among those from the Mayo Clinic attending the meeting of the American Medical Association in Atlantic City were Drs. W. J. Mayo, F. C. Mann, P. P. Vinson, M. G. Peterman, A. H. Sanford, F. A. Figi, L. J. Stacy, C. H. Greene, L. G. Rowntree, N. M. Keith, J. A. Bargen, J. de J.

Pemberton, E. S. Judd, M. S. Henderson, C. B. Lara, W. I. Lillie, E. C. Kendall, F. A. Willius, A. W. Adson, and S. H. Mentzer.

Drs. Benedicto Montenegro, Rezende Puech, and Souza Campos, a delegation of Brazilian medical men, who came to this country at the invitation of the Rockefeller Foundation in connection with the reorganization and development of the Faculdade de Medicina e Cirurgia of Sao Paulo, visited the Mayo Clinic, May 13.

The library of the late Dr. Julius Parker Sedgwick has recently been turned over to the University of Minnesota and accepted by the Board of Regents. This gift was made possible through the contribution of friends of the late Dr. Sedgwick toward the purchase of the library for the University, to be maintained as a memorial to him.

Dr. Richard Olding Beard, the oldest member of the Medical School faculty of the University of Minnesota and the only man who has been with the school from the beginning, retired from active service, June 30, 1925. Although severing his connections with the medical faculty, Dr. Beard will continue his other interests at the University.

Dr. A. H. Brown of Pipestone is taking a two months' automobile trip through the Eastern United States and Canada. He attended the meeting of the American Medical Association in Atlantic City, the one hundredth anniversary of Jefferson Medical College and the thirtieth anniversary of his graduation. He also attended the graduation exercises of Wellesley College, where his daughter received her degree this year. Dr. Brown will visit in his former home in Canada before returning.

Service men's organizations, doctors and hospitals throughout the country are warned to be on guard against an impostor who will probably work in much the same way as he did at Montevideo, Minn., as follows:

He represented himself as an ex-regular army major of engineers, badly wounded in action and totally disabled ever since; stated that he had been operated upon repeatedly since the war in an attempt to heal a fecal fistula; he showed an abdomen literally covered with scars of operation wounds and a bona-fide fistula; said that he needed to be hospitalized and wished to enter the Montevideo Hospital for a short period.

After a few days acquaintanceship, he cashed two bad checks and disappeared.

He went by the name of Major Wm. Stewart; was about 5 feet nine inches tall; weight about 180 pounds; dark brown eyes and black hair; about 45 years old; wearing dark blue coat and trousers and black plush fedora hat. Easily identified by scars on abdomen.

Anyone having information of this man kindly telegraph collect to Sheriff of Chippewa County, Montevideo, Minn.

The following nominations were presented and approved at the May meeting of the Administration Board of the University of Minnesota Medical School: Harold E. Roe as Teaching Fellow in Anatomy; Miss Eleanor Zuppan and Miss Helen C. Peck as Instructors in Public Health Nursing; Mr. Emmett L. Schield as Teaching Fellow in Pathology; Dr. S. E. Sweitzer as Associate Professor of Dermatology and Syphilis; Dr. George S. Stevenson as

Assistant Professor of Nervous and Mental Diseases; Dr. C. A. Boreen as Instructor in Dermatology and Syphilis; Dr. Smiley Blanton as Assistant Professor of Mental Diseases; Dr. Edwin R. Eisler as Assistant in Nervous and Mental Diseases; Drs. Herbert H. Burns, Benjamin A. Dvorak, Frank R. Hirschfeld, George A. Holm, Richard H. Lindquist, Robert McGandy, Charles E. Merkert, F. R. Pearson, Clifford G. Salt, Olof I. Sohlberg and George F. Swinnerton as Assistants in Medicine; Dr. Wm. W. Swanson and Edith Boyd as Instructors in Pediatrics; Dr. John M. Culligan as Assistant in Surgery; Dr. Edward A. Regnier as Assistant in Surgery; Dr. Harold R. Fehland as Teaching Fellow in Surgery; Mrs. Dorothy Kurtzman and Miss Olena Ordahl as Assistant Professors in Nursing; Miss Lana M. Babcock and Miss Hannah Burggren as Assistants in Nursing; Dr. Joseph T. Cohen as Assistant in Dentistry.

It was also voted as the sense of the Administrative Board that the same fellowship stipends be paid to University Fellows as Fellows at the Mayo Foundation, namely, \$800, \$900 and \$1,000 in successive years, and that full-time clinical assistants be paid from \$1,200 to \$1,800 a year, and full-time clinical instructors up to \$2,500 for first year and up to \$3,000 for second year service.

## NEW AND NON-OFFICIAL REMEDIES

The following articles have been accepted by the Council on Pharmacy and Chemistry:

### LEDERLE ANTITOXIN LABORATORIES:

- Poison Ivy Extract-Lederle (In Almond Oil)
- Poison Ivy Extract-Lederle (In Almond Oil) 1 c.c.
- Rabies Vaccine-Lederle (Semple Method)

### H. K. MULFORD COMPANY:

- Pollen Extracts
- Insulin-Mulford
- Insulin-Mulford 10 Units, 5 cc.
- Insulin-Mulford 20 Units, 5 cc.
- Insulin-Mulford 40 Units, 5 cc.

### PARKE, DAVIS & COMPANY:

- Typhoid Vaccine (Prophylactic) 30 c.c.
- Typhoid Paratyphoid Vaccine (Prophylactic) 30 c.c.

### POWERS-WEIGHTMAN-ROSENGARTEN COMPANY:

- Stovarsol
- Stovarsol Tablets 0.25 gm.

### SWAN-MYERS COMPANY:

- Pollen Extracts

### CHANGE OF AGENCY

Sulfarsenol, formerly distributed by Charles Leich and Co., is now distributed by the Anglo-French Drug Co., which supplies .06, .12, .18, .30, .42, .60 gm. ampules. The Council has continued the acceptance of Sulfarsenol under the new distributor.

### NEW AND NON-OFFICIAL REMEDIES

**Caprokol.-Hexylresorcinol-S. & D.**—Normal hexylresorcinol, containing not more than 5 per cent of the intermediate product hexylresorcinol. Caprokol possesses marked

germicidal properties, is stated to have a phenol coefficient of 45 and to be relatively nontoxic when administered by mouth. When administered, it imparts definite germicidal properties to the urine. Administration of caprokol to normal individuals caused secretion of urine which killed *Bacillus coli* and *Staphylococcus albus*, but the effect of the drug was not constant. Caprokol is proposed for the treatment of urinary infections. The drug is marketed in the form of capsules hexylresorcinol-S. & D., each containing 0.15 gm. dissolved in olive oil. Sharp and Dohme, Baltimore.

**Insulin-Stearns, Single Strength.**—10 c.c. vials containing in each c.c. 10 units of insulin-Stearns (New and Non-official Remedies, 1925, p. 174). Frederick Stearns and Company, Detroit.

**Insulin-Stearns, Double Strength.**—10 c.c. vials containing in each c.c. 20 units of insulin-Stearns (New and Non-official Remedies, 1925, p. 174). Frederick Stearns and Company, Detroit.

**Insulin-Stearns, Quadruple Strength.**—10 c.c. vials, each containing 40 units of insulin-Stearns. (New and Non-official Remedies, 1925, p. 174). Frederick Stearns and Company, Detroit.

**Scarlet Fever Streptococcus Antitoxin.**—An antitoxic serum prepared by immunizing animals against the toxin of the hemolytic streptococcus of scarlet fever. It is prepared (a) after the method of G. F. Dick and G. H. Dick by immunizing horses by injection of soluble toxins of strains of hemolytic streptococci which have produced experimental scarlet fever in human beings and (b) by the method of A. R. Dochez by which horses are immunized against the specific scarlet fever organism by the localization of the living streptococci in a subcutaneous agar nodule. Much evidence has accumulated to show that the specific organism of scarlet fever has been determined and that the administration of a serum containing the antitoxin produced by this organism will favorably affect the course of scarlet fever.

**Scarlet Fever Streptococcus Antitoxin-Lilly (Unconcentrated).**—It is prepared by the Dochez method. Each c.c. neutralizes at least 10,000 skin test doses of scarlet fever toxin. Marketed in packages of one vial containing 20 c.c. Eli Lilly and Co., Indianapolis, Ind.

**Scarlet Fever Streptococcus Antitoxin-Lilly (Refined and Concentrated).**—It is prepared by the Dochez method. Each c.c. neutralizes at least 20,000 skin test doses. Marketed in packages of one vial containing 10 c.c. Eli Lilly and Co., Indianapolis, Ind.

**Scarlet Fever Streptococcus Antitoxin-U. S. S. P.**—It is prepared by the method of Drs. Dick. Each c.c. neutralizes at least 1,000 skin test doses of scarlet fever toxin. Marketed in packages of one syringe containing 10 c.c. (prophylactic dose); and in packages of one vial containing 20 c.c. (therapeutic dose). United States Standard Products Co., Woodworth, Wis. (Jour. A. M. A., May 2, 1925, p. 1338.)

**Lunosol.—Argenti Chloridum Colloidale Saccharatum-Hille.**—A preparation of colloidal silver chloride containing silver chloride, 10 per cent, and sucrose, 90 per cent. Lunosol has antiseptic and germicidal properties. It causes neither irritation of the mucous membrane nor coagulation

of albumin even in concentrated solutions; it does not stain the skin. Lunosol is intended for the prophylaxis against and treatment of infections of the accessible mucous membranes, such as the genito-urinary tract and the eye, ear, nose and throat. Lunosol is sold in bulk and in capsules containing six grains. Hille Laboratories, Inc., Chicago.

**Rabies Vaccine (Semple).**—An antirabic vaccine (New and Non-official Remedies, 1925, p. 342) prepared according to the general method of David Semple (phenol killed). It is marketed in packages of seven syringes, each containing 2.5 c.c. Cutter Laboratory, Berkeley, Calif. (Jour. A. M. A., May 16, 1925, p. 1497.)

**Bromsulphalein-H. W. & D.—Disodium phenoltetrabromphthalein-sulphonate.**—The disodium salt formed by the interaction of tetrabromphthalic acid (or anhydride) and phenol with subsequent sulphonation. It contains from 37 to 38 per cent of bromine. Bromsulphalein-H. W. & D. is used as a test of liver function; the amount remaining in the blood stream after intravenous injections as determined colorimetrically is considered a measure of hepatic dysfunction. Bromsulphalein-H. W. & D. is supplied in ampules containing 3 c.c. of a 5 per cent solution. Hynson, Westcott and Dunning, Baltimore. (Jour. A. M. A., May 23, 1925, p. 1573.)

**Concentrated Pollen Extracts—Swan-Myers.**—Liquids obtained by extracting the dried pollen of plants with a liquid consisting of 67 per cent glycerin and 33 per cent of a solution containing sodium chloride, 2.5 gm., and sodium bicarbonate, 2.7 gm., in distilled water, 1,000 c.c. For actions, uses and dosage see Allergic Protein Preparations, New and Non-official Remedies, 1925, p. 278.

**Rabies Vaccine-Lederle (Semple Method).**—An antirabic vaccine (New and Non-official Remedies, 1925, p. 342) prepared according to the general method of David Semple (phenol killed). It is marketed in packages of 14 syringes each containing 2 c.c. Lederle Antitoxin Laboratories, New York. (Jour. A. M. A., May 30, 1925, p. 1634.)

## CASE REPORTS

Members are requested to report interesting and unusual cases for publication in this department. Many cases reported at hospital staff meetings and similar meetings are very instructive and worthy of publication.

### DIOCTOPHYME RENALE OR EUSTRONGYLUS GIGAS: REPORT OF A CASE\*

MINAS JOANNIDES, M.D.

and

WILLIAM A. RILEY, Ph.D.  
Minneapolis

*Eustrongylus gigas* is a very rare parasite. It has been found most commonly in the dog, though cases have been reported where the parasite was found in the mink, the

horse, and the human. There are 20 reported cases in the human (Leuckart), but out of these only 7 cases may be regarded as authentic (Stitt), the rest having been proven to be blood clots passed per urethram, *Filaria sanguinis hominis*, or wandering ascarides.

Because of the scarcity of this parasite a report of our accidental finding of the worm may be appropriate. The worm was found during the course of an experimental laparotomy. The dog harboring the worm was brought to this city from Seattle, Washington, and was sold to a dealer, who, in turn, sold it to our laboratory. It was an apparently healthy female dachshund and had no evidence of any gastro-intestinal or renal trouble. On opening the dog's abdomen, we found that the omentum was injected with punctate hemorrhagic areas. The serosa of the whole gastro-intestinal tract had the same appearance as the omentum. On attempting to localize the appendix a round free loop, blood-red in color, was pulled out. On further pulling, a live worm 75 cm. long and 0.8 cm. in diameter was recovered. The abdomen was then carefully explored and another female worm of the same size and characteristics was removed. The kidneys were apparently normal. The worms were kept alive for twenty-four hours before they were fixed in alcohol. The dog was alive and well ten days after the laparotomy, when it was killed and an autopsy revealed nothing new except the presence of the common types of round and flat worms in the small intestine. No eggs or young parasites were found on careful examination.

The above is the twenty-ninth case reported in this country. Riley reported three, and collected a total of twenty-seven reports of the worm in this country. In 1917, Riley reported another case and also gave facts that disproved the theory that the parasite passes into the abdominal cavity through the Fallopian tube. Stitt refers to *Eustrongylus* as the largest round-worm infecting man. He states that there are seven authentic cases of human infection.

From the study of our findings no explanation can be advanced as to the mode of introduction of the parasite into the abdominal cavity or the kidney. The study of our dog gave us no clue as to how these parasites reach the abdominal cavity. The two possible routes, namely, the implantation of the larvæ into the peritoneal cavity through the blood or lymph stream of the kidney, or a direct migration of the young or adult parasite from the gastro-intestinal canal, are the only two logical routes of extension.

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2. Riley, W. W.: The occurrence of the giant nematode, *Dioctophyme renale* (*Eustrongylus*) in the United States and Canada. Jour. American Vet. Assoc., xlix, n.s. ii, pp. 801-809.
3. Riley, W. A.: Another case of the occurrence of the giant nematode, *Dioctophyme renale*, in the abdominal cavity, and data bearing upon the theory of entry via the genito-urinary tract. Cornell Veterinarian, vol. vii, No. 1, pp. 43-45, Jan., 1917.

\*From the laboratory of Experimental Surgery and the Department of Entomology, University of Minnesota, Minneapolis, Minnesota. Read before the Minnesota Pathological Society, April 21, 1925.

## CONGENITAL ANOMALIES OF THE EYE\*

## REPORT OF CASE

V. J. SCHWARTZ, M.D.

Minneapolis

Mr. A. D. H., aged 56, married, was admitted to the Minneapolis General Hospital on January 27, 1925, for paranoia. His past history was negative except for an injury to the scalp eight years before, caused by a falling plank, but this had no apparent bearing on the condition present. The patient was born in Australia and educated in England.

Mental peculiarity set in six or eight weeks previous to entrance to the hospital. He became argumentative and nervous and was unable to sleep well. A week before his admission to the hospital he went to work, but did not feel well and soon became entirely disorientated. In a short time, however, he recalled his identity, became apparently more clear mentally, and was then taken home. It seems difficult to believe for one with his ocular condition, but it is a fact that for six years he had handled a heavy hammer as a riveter in the boiler-room of a railroad shop.

The patient stated that for many years he had had practically no vision in his left eye and that the vision in the right eye was failing. He also said that his father and the latter's brother had an involvement of the eye somewhat like his own; in fact, eye trouble had been hereditary among the male members of his family for several generations. He said his grandfather's eyes were clear, but that his great-grandfather's had been affected. His mother was living and well, eighty-eight years old; his father was killed in an accident; his brothers were killed in the war. He had one sister, living and well, as were also his wife and a son, aged nineteen years.

The patient exhibited a number of congenital ocular anomalies. The right eye showed a coloboma of the iris and a large coloboma of the choroid. There might also have been a coloboma of the ciliary body, but this could not be definitely stated. There was a partially developed cataract in the right lens. It seemed fortunate that the nature of his work required him to look down almost constantly, for the upper part of the retina and the choroid were intact. The coloboma, however, situated below, eliminated the greater part of his upper visual field. The optic disc itself seemed flattened, if not actually invaginated inferiorly.

The colobomata, of course, are easily traceable to a failure or incompleteness of fusion of the hyaloid fissure, or the fetal optic cleft, this being always present on the inferior surface of the optic vesicle which is pushed out on each side from the fetal forebrain. Most rapid growth takes place dorsally, a little less rapid in the lateral wall, while below there is no growth, leaving the cleft.

If the defective fusion extends far enough back toward the brain, the optic nerve will also show signs of incomplete closure inferiorly about the central retinal vessels, and so, therefore, a malformation of the disc. If the fail-

ure to close does not extend so far posteriorly, the coloboma will involve only the uveal tract; if only the most anterior portion of the cup shows a deficiency, only the iris may be involved. If this outermost portion is spanned by only a few fibers instead of by a complete closure, an accessory pupil, below the normal pupil, will be formed. Furthermore, if the fissure should shift slightly to one side instead of being in the center of the optic stalk below, an eccentric or ectopic pupil results. This patient's left eye clearly illustrated both these latter conditions.

The cataract in the right eye was only partial, but that in the left was much farther advanced. Their etiology is hard to explain. Fetal ocular inflammation has often been advanced as a theory, while Fuchs believes that a retinal detachment, from adhesion to the margins of the coloboma, may here be present, in which case the lens would suffer through a change in its nutrition or through permeation with inflammatory products.

HERNIA OF THE BROAD LIGAMENT FOLLOWING  
THE ORIGINAL TYPE OF GILLIAM  
OPERATION\*

## REPORT OF CASE

J. H. SIMONS, M.D.

Minneapolis

D. S., a woman, aged 20 years, entered the hospital March 13, 1925, complaining of (1) pain in the lower abdomen, bilateral, and (2) vaginal discharge.

The patient was unmarried. In July, 1924, she had a miscarriage at three months, following which she began to have pain in the right lower quadrant associated with fever and purulent discharge. She stated that this was spontaneous. August 19 she was operated upon for an inflammatory disease of the pelvis. At this time the right tube and right ovary were removed. The left tube was only slightly inflamed. The appendix, which was bound down to an inflammatory mass and showed some inflammatory changes, was also removed. The uterus was in third degree adherent retroversion and a suspension operation was done. On the right side this was done by a modified Gilliam and on the left by the original Gilliam method. After this operation the patient felt quite well until September, when she began to have dull aching pain in the left lower quadrant with a prickly sensation, usually worse at her menstrual periods. She had been moderately constipated. The pains had increased during the last two months and at the time of entrance to the hospital they radiated to the left leg. For the past two weeks she had also had some moderate pain in the right lower quadrant. She had had a persistent vaginal discharge since her miscarriage. This was the only pregnancy.

When a child the patient had measles, chickenpox, and pertussis. Menstrual periods began at fourteen years and were irregular at first. There had been no periods for the past three months, the last one having been in December, 1924. Prior to this, the periods had been the regular

\*From the Eye, Ear, Nose and Throat Service, Dr. F. J. Pratt, Chief, Minneapolis General Hospital.

\*From Division A, Gynecological Service, Dr. F. L. Adair, Chief, Minneapolis General Hospital.

twenty-eight day type. There was no history of venereal disease. The family history was negative.

The patient stated that she had had pains after eating, with occasional vomiting and persistent constipation. She was rather poorly nourished, the asthenic type. The skin was normal, but pale. Temperature was normal, pulse 76. The breasts were normal. The thyroid was palpable. There were no palpable nodes. Examination of the head was negative and neurological findings were negative. The chest and heart were within normal limits. Examination of the abdomen revealed a low midline scar, and slight tenderness in both lower quadrants, more marked on the left side, but no rigidity or palpable masses.

Bimanual examination showed the following: Some mucopurulent discharge from the vagina; Bartholin's gland enlarged to about 1 cm. in diameter; cervix pointing downward and backward; corpus in anterior, normal position, and of normal mobility; the right adnexal region negative. A left adnexal mass was found, pointing outward, downward, and backward into the cul-de-sac.

A diagnosis of left salpingo-oöphoritis and chronic Bartholinitis was made and an operation recommended.

March 25 the patient was operated upon by Dr. J. H. Simons. A lower midline incision was made, removing the old operative scar. Numerous adhesions were found between the omentum and the abdominal wall. These were separated and the raw edges turned in. The uterus was in good anterior position and was of normal consistency. In the broad ligament on the left side, where a Gilliam suspension of the original type had been done, there was a hernial opening large enough to admit a loop of bowel. The right side, on which a modified Gilliam suspension had been done, was in good condition. The left tube was fairly normal but was removed. The hernial opening was closed and the round ligament cut close to the abdominal wall, the raw surfaces turned in and peritonealized. The abdomen was closed in the usual manner.

The patient made an uneventful recovery and suffered only slight pain over the whole abdomen during her convalescence.

*The Parathyroid Hormone.*—Postoperative tetany has been relieved by parathyroid grafting. This fact, in connection with other obvious considerations, has prompted the belief that the parathyroid supplied an indispensable hormone to the body. The attempts to use desiccated gland substance or extracts in a replacement therapy have not, as a rule, been attended with success. However, Collip has succeeded in preparing extracts of parathyroid glands that control or prevent tetany in parathyroidectomized animals, and permit them to live. The active principle in this extract produces its effect by causing the calcium content of the blood serum to be restored within normal limits. Coincident with the marked improvement observed after the use of the active extract, a rise in blood calcium has been noted. It has been found that an overdosage with the active extract may push the rise of blood calcium to a condition of hypercalcemia that may even become fatal. These findings on animals warn against careless applications of the new discovery to man and extol the advantage of animal experimentation as a preliminary to human therapy. (Jour. A. M. A., May 16, 1925, p. 1499.)

## PROGRESS

Abstracts to be submitted to Section Supervisors.

Members are urged to abstract valuable articles which they run across in their reading and send the abstracts to the physicians in charge of the respective sections. In order to avoid duplication it would be well to communicate with one of the section supervisors before the article is abstracted.

## SURGERY

### SUPERVISORS:

DONALD K. BACON,  
LOWRY BLDG., ST. PAUL

VERNE C. HUNT,  
MAYO CLINIC, ROCHESTER

**LATENT JAUNDICE AS A SYMPTOM OF BILIARY COLIC:** G. de Takats, Budapest (Annals of Surgery, 1925, lxxxi, 108-110). Thirty per cent of all gallstone cases and 75 per cent of common-duct stone cases have jaundice in their history. The author used the Von den Bergh method in investigating fifteen cases during or shortly after attacks of biliary colic. Gallstones were verified in every case by operation. In each case the blood showed an increase in bilirubin content, from 1.5 milligrams to 8 milligrams in 100 c.c. of blood. Only one of these cases developed visible jaundice; this patient had bilirubin of 8 milligrams on the day following the attack and became jaundiced on the fourth day. At operation an impacted stone was found in the papilla of Vater. The threshold of elimination for bilirubin is supposed to be at 2 milligrams in 100 c.c. of blood. Assuming that increased bilirubinemia is due to increased bile tension from muscle spasm, atropin should stop pain, diminish bile tension, and decrease the bilirubinemia.

In four of five cases the hyperbilirubinemia could be lowered by the intravenous injection of .5 milligram of atropin. This fact might be explained by the relaxation of the muscles that regulate bile flow.

No definite conclusions are drawn in this article.

J. K. HOLLOWAY, M.D.

**THE SURGERY OF JAUNDICE:** John B. Deaver (Annals of Surgery, 1925, lxxxi, 287). The author defines jaundice as a condition in which an excessive amount of bile of certain qualitative characteristics circulating in the blood causes a yellowish pigmentation of the skin and mucous membranes. Three pathogenic types of jaundice may be recognized, one type due to obstruction, another to excess and perverted hemolysis, and a postoperative type due to infection and often operative trauma.

Catarrhal jaundice, which probably results from a mild cholangitis, usually yields to nonsurgical treatment. In those cases that do not, surgical exploration frequently reveals a mild pancreatitis. This the author attributes to infection which has extended from the papilla of Vater

into the pancreatic and common bile ducts. In such cases bile drainage should be instituted. Obstructive jaundice is the most common surgical type. It has its origin in the liver and is due to some form of obstruction to the flow of bile, either within or without the ducts. A contracted papilla of Vater, which results in a stricture, may lead to permanent obstruction of the papilla. Inflammation of the pancreas which may extend on to the portion of the duodenal wall including the terminal portion of the common duct may cause such a stricture. Obstruction due to compression from primary or metastatic tumors from syphilitic processes, as well as from scars of duodenal and gastric ulcers, and stones in the common duct, can be relieved only by operation.

Jaundice of hemolytic icterus is explained as a result of diminished resistance of the red blood cells and their destruction in the spleen in large numbers. The liver is flooded with pigment which increases the viscosity of the bile and produces inspissated plugs in the small biliary ducts. Quoting W. J. Mayo, "This condition can be cured only by removal of the spleen, which cannot be done too early." Chronic jaundice of biliary cirrhosis can be relieved only by early drainage operation. W. J. Mayo divides biliary cirrhosis into three groups. The most common type is that resulting from infectious and obstructive processes having origin in the gall-bladder or common duct, the usual cause of which is stone in the common duct and enlargement of the head of the pancreas. In the second type there is no demonstrable obstruction or infection in the bile ducts; the ducts are thickened, jaundice is chronic, and splenic enlargement is marked. The liver is also enlarged and firm. In such cases bile drainage is indicated and at times splenectomy. The third is the splenic type, for which little can be done.

Postoperative jaundice if temporary is usually due to cholangitis, and is the result of manipulation. Delayed and persistent jaundice usually means injury to the common duct. In jaundice of cholangitis not due to calculous obstruction but to cholelithiasis with thickening of the walls of the duct, anastomosis of the gall-bladder to the duodenum is the best operative procedure. When the gall-bladder is present and intact, and the lesion is a nontraumatic stricture of the duct, dilatation of the stricture and the introduction of a T-tube should be effected.

The postoperative dangers to the jaundiced patient are hepatic insufficiency and bleeding. The former is frequently fatal in spite of measures such as water by mouth, saline, and glucose solution by enteroclysis or intravenously. There is apparently a close relationship between hepatic and renal insufficiency and these patients practically always die of uremia. When the urine contains acetone or diacetic acid operation should be delayed except in emergency cases. Bleeding is rarely seen following preoperative administration of calcium chloride intravenously. Preoperative attention should be directed to the circulation, blood sugar, urine and urinary output, cardiac function, focal infections, and obesity. Obesity should be reduced. There is a relation-

ship between high blood sugar and the glycogenic function of the liver, and the high fever in hepatic insufficiency following operation is also significant.

Traumatism of the ducts occurs in spite of care. When recognized, reconstruction should be attempted. It is frequently satisfactory to introduce a T-tube and permit long drainage in cases where edge to edge apposition of cut ends of the duct cannot be obtained. Cholecystoduodenostomy is preferable to cholecystogastrostomy if the duodenum can be mobilized.

J. K. HOLLOWAY, M.D.

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## PEDIATRICS

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### SUPERVISORS:

CHESTER A. STEWART,  
LA SALLE BLDG., MINNEAPOLIS  
ROY N. ANDREWS,  
MANKATO CLINIC, MANKATO

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### INTRAMUSCULAR USE OF ETHER IN PERTUSSIS:

Abraham Tow, M.D. (Amer. Jour. of Diseases of Children, April, 1925). The successful treatment of pertussis has long been a stumbling block in the progress of medicine. This disease, although in itself rarely fatal, leaves behind an individual susceptible to many pulmonary conditions, especially tuberculosis.

The use of ether intramuscularly also has been recommended, and in order to determine the value of this method, all patients with whooping cough seen at the out-patient department of the City Hospital from July to December, 1924, were so treated.

In this series, a commercial brand of sulphuric ether used ordinarily for anesthesia was taken directly from its container and was injected deep into the gluteal region. One cubic centimeter was given to all patients under 1 year of age, and doses up to 2 c.c. to those above that age. Injections were made daily for three to six days and then every other or third day, according to the need of the patient. If there was no improvement after five or six injections, they were discontinued. The point of election for injection was posteriorly about 2 inches (5 cm.) below the middle of the crest of the ilium deep down almost to the bone.

The breath of those injected developed an ether-like odor within thirty minutes after the injection, and this lasted from four to six hours. The earlier the treatment is instituted the more likely is the possibility of a successful result. The danger of necrosis must always be borne in mind. But it is more likely that the action of the ether is due to its narcotic properties.

Eighty-two per cent, or 50 out of 61 children suffering from whooping cough were aided by the use of ether intramuscularly. The ages varied from 20 days to 7 years. The number of paroxysms was reduced and their severity

lessened; the patients slept better; their appetite improved, and vomiting also was lessened.

Eight per cent, or 11, were not aided.

Seven out of 80 patients, or 9 per cent of the total number, had necrotic areas at the site of injection. Each of these had one area, except one patient who had two small patches. In only two instances were the local reactions severe.

Eight out of 385, or 2 per cent of the total number of injections, were complicated by necrosis.

Ether intramuscularly is a valuable drug in the treatment of pertussis.

The use of ether intramuscularly is not without danger of necrosis.

R. N. ANDREWS, M.D.

**THE VALUE OF GASTROINTESTINAL X-RAYS IN THE DISEASES OF CHILDREN:** T. Wood Clarke, M.D. (Arch. of Ped., December, 1924). The examination of the gastrointestinal tract by means of the x-ray following barium administered by mouth or by rectum is undoubtedly one of the greatest additions of recent years to the armamentarium of the internist, and the value is becoming yearly more thoroughly recognized by the profession.

Today intussusception may and should be recognized within a few hours. There is nothing in diagnosis more gratifying than the results of a barium enema, and observation under the fluoroscope during the first few hours of an intussusception in an infant. Another condition in young infants in which roentgenoscopic examination is a great help is congenital pylorospasm or pyloric stenosis.

A stomach that empties in two hours can be said to have no pylorospasm or stenosis. One that contains barium between two and four hours suggests a mild degree of pylorospasm, and one that still shows barium in the stomach in any appreciable quantity after four to five hours can be diagnosed as probably a severe grade of pylorospasm or an organic pyloric stenosis. Four-hour retention, however, must not be considered as an absolute indication for immediate surgery, as at times the cases that appear clinically to be most markedly stenosed will recover nicely with proper care without operation.

Adhesions about the pylorus may be suggested by the absence of the duodenal cap, and adhesions about the appendix by retention of barium in the cecum after forty-eight hours. The most interesting finding of all, however, is the old chronic appendix, which may be strikingly shown in certain cases in which appendicitis has never been suggested. The author's experience confirms me in the belief that a shadow of the appendix shown four days following barium by mouth is a most valuable aid in determining the presence of a chronic inflammation of the appendix.

A thorough gastrointestinal examination by the x-ray is a valuable adjunct to clinical examination and blood, stool and stomach analysis, in the clearing up of obscure gastrointestinal abnormalities in the child.

R. N. ANDREWS, M.D.

## BOOK REVIEWS

**PHYSICAL DIAGNOSIS.** W. D. Rose, M.D., Lecturer on Physical Diagnosis and Associate Professor of Medicine in the University of Arkansas, etc. Fourth Edition. Three hundred nineteen illustrations. St. Louis. C. V. Mosby Co., 1924. Price \$8.50.

Up to page 346 in this edition, there have been no changes of the text found in the third edition published in 1922. At the point mentioned the title "Sphygmography" becomes "Polygraphy" and there is written a new description of the use of the clinical polygraphy by which synchronous tracings are made of the radial pulse, the cardiac impulse and of a third pulsating area such as the carotid artery or the jugular vein. The plates illustrating this portion of the book have been changed also, and no fault should be found with the clearness of the description of this diagnostic method which helps the practitioner in the clinical study of the various forms of arrhythmia.

Five-sevenths of the pages of this book are devoted to the diseases of the organs of the thorax. The remaining pages take up the consideration of the abdominal organs, the head, neck and extremities and of the nervous system. The knowledge that can be gained of these parts of the body by sight, hearing and touch, aided by all known helpful mechanical appliances, is set before the reader in an excellent manner, clear, concise and free from padding. No work has been written better suited to the use of the practitioner.

The rapidly developing study of the heart-beat and the use of the electrocardiograph are set forth plainly. Few will fail to find it profitable to go over again the points that are important in the diagnosis of diseases of the heart, the lungs and the abdominal viscera or will fail to find new suggestions in the description of the methods recommended for the examination of the head, the extremities and the nervous system. Very valuable suggestions are contained in the diagnostic theses relating to the differentiation of the various forms of cardiac arrhythmia, suggestions helpful for bedside diagnosis without the use of complicated apparatus.

It is interesting to note that into the diagnosis of paroxysmal tachycardia there has crept a reference to some of the mechanical measures for checking the paroxysm, because the success of these measures forms a kind of therapeutic diagnosis.

W. DAVIS, M.D.

**NEW AND NON-OFFICIAL REMEDIES, 1925,** containing descriptions of the articles which stand accepted by the Council on Pharmacy and Chemistry of the American Medical Association on Jan. 1, 1925. Cloth. Price, postpaid, \$1.50. Pp. 461+XL. Chicago: American Medical Association, 1925.

New and Non-official Remedies is the publication of the Council on Pharmacy and Chemistry through which this body annually provides the American medical profession with disinterested critical information about the proprietary medicines which are offered to the profession and which the Council deems worthy of recognition. The book also

contains descriptions of non-proprietary medicines which the Council considers worthy of consideration.

In addition to a statement of the actions, uses and dosage of each product, many of these are arranged in classes and these classes are introduced by a general discussion of the group; thus the silver preparations, the iodine preparations, the arsenic preparations and the biologic products are preceded by a thoroughly up-to-date discussion of the group.

A glance at the preface shows that, in addition to the description of the new drugs which were accepted during the past year, the book has been extensively revised; many of the preparations listed in the previous edition have been omitted and the statements of the properties of others have been revised to bring the descriptions in accord with present day knowledge. Of particular interest is the revision of the general articles; thus the article on endocrine products has been entirely rewritten to bring this chapter in accord with the series of articles on glandular therapy which were published in 1924 under the auspices of the Council. A general article on medicinal dyes has been added.

A section of the book (brought up-to-date each year) gives references to proprietary articles not accepted for New and Non-official remedies. This list, in conjunction with the book proper, constitutes a cumulative index of proprietary medicines which physicians may consult when some proprietary product is brought to their attention.

Physicians cannot dispense with the newer remedies that are being brought out, yet they can neither judge them on the basis of the manufacturers' claims nor have they the opportunity or time to determine their merits. For this reason every physician should possess a copy of the annual volume of New and Non-official Remedies which the Council on Pharmacy and Chemistry puts at his disposal.

**FROM INFANCY TO CHILDHOOD.** Richard M. Smith, M.D. The Atlantic Monthly Press, 1925.

This small volume contains many valuable suggestions to parents for the proper physical care and mental training of their children.

It is written in clear, concise language covering the following subjects: Doctor, Mother and Nurse, The Nursery, Physical Development, Care of the Body, Clothes, Food, Daily Routine, Sickness, Training and Education.

It also contains two pages of first aid suggestions. Weight, height and age tables for girls and boys and graphic charts showing average height and weight progress for girls and boys are given. The author stresses the importance of regular and complete physical examinations by a physician and the value of medical counsel.

It is a book that we can recommend to our clients to guide them in caring for their children.

J. D. GEISSINGER, M.D.

**FOR SALE**—Late type 120 Kilovolt Acme International X-ray Generator complete with filament control for 220 volt alternating current. Also Acme International combined radiographic and fluoroscopic table for both horizontal and vertical fluoroscopy. Two Coolidge tubes. Complete dark room equipment. Also have some office equipment to sell. Splendid buy for someone who is just installing an x-ray department. Address C-31, care MINNESOTA MEDICINE, or telephone, Minneapolis, Atlantic 3380.

**FOR SALE** — Practice of physician recently deceased. Also office equipment (does not include x-ray), books, five-passenger car. Near Twin Cities, in city of 12,000 inhabitants. Splendid hospital. Exceptional location for German-Catholic doctor. Address C-28, care MINNESOTA MEDICINE.

**OFFICE SPACE FOR RENT** at 630 Syndicate Bldg., Minneapolis, with three other doctors. Either oculist and aurist or pediatrician preferred. Address C-30, care MINNESOTA MEDICINE.

**WANTED** — Preferably young man to help out during vacation of one or two partners in a general and surgical practice for two to four weeks. Possibly permanent. State remuneration expected. Address C-29, care MINNESOTA MEDICINE.

**FOR SALE**—Haldane Basal Metabolic Machine; includes three Haldane units, motorized, on stand, tank separate. Will sell very reasonable. A. G. Stasel, Business Manager, Nicollet Clinic, 1009 Nicollet Avenue, Minneapolis, Minn.

**FOR SALE**—General practice in southern Minnesota village; good dairy farming community; three tributary towns without physician; cash receipts last year, \$9,000. Residence designed for use as small hospital; separate office building. Good man will make money from start. Address C-25, care MINNESOTA MEDICINE.

**WANTED**—Salaried appointments for Class A physicians in all branches of the medical profession. Let us put you in touch with the best man for your opening. Our nation-wide connections enable us to give superior service. Aznoe's National Physicians' Exchange, 30 North Michigan Ave., Chicago. Established 1896. Member The Chicago Association of Commerce.

**COLLECTION SERVICE**—American Medical Board of Adjustors, First National Bank Building, Chicago. Guaranteed *Delinquent Collection Service*, anywhere U. S. A. (Medical profession exclusively). Debtors pay you direct. Litigation avoided. Adjustments encouraged. No "Agency" methods. Financially responsible. **WRITE!**

**FOR RENT**—Very suitable space for physician, in Hamm Bldg., St. Paul. Furnished reception room. Reasonable. Address C-33, care MINNESOTA MEDICINE, or telephone Cedar 2460.

**WANTED**—A location, by a Minnesota graduate, 1923. Have had two years' general practice following an eighteen months' internship. Six months' experience in physiotherapy. Prefer association with a busy, well established physician or with a clinic, but will consider purchase of a desirable practice. Address C-32, care MINNESOTA MEDICINE.

# Minnesota State Medical Association

## FIFTY-SEVENTH ANNUAL MEETING

April 27, 28 and 29, 1925

### MINNEAPOLIS, MINNESOTA

#### PROCEEDINGS OF THE HOUSE OF DELEGATES

##### FIRST MEETING—APRIL 27, 1925

The first meeting of the House of Delegates was held in Room 104, Anatomy Building, at 2 p. m., with President W. L. Burnap in the chair.

The following Committee on Credentials was appointed: Dr. Vernon C. Hunt, Rochester; Dr. H. C. Cooney, Princeton; Dr. B. S. Adams, Hibbing.

Motion to accept the minutes of the last meeting as published in the December issue of MINNESOTA MEDICINE was made.

Report of the meeting of the Council by Dr. H. M. Workman was accepted.

Attorney's report was read by the Secretary:

St. Paul, Minn., April 21st, 1925.

Dr. E. A. Meyerding, Secretary,  
Minnesota State Medical Association,  
Saint Paul, Minnesota.

Dear Doctor:

You have requested it, and we make report to the Association covering the work done by us during the current fiscal year, including reference to pending cases:

*Flynn vs. O'Hara.* The charge of malpractice in this case is in producing lacerations, with resulting infections, in the treatment of Manda Flynn in childbirth. The action has been once tried, but the court granted a new trial. The action is still pending.

*Walrath vs. Hammermeister.* The charge of malpractice is in injecting ether into the leg of the patient, thereby causing injury to the sciatic nerve, leaving the patient in a crippled and paralyzed condition. The patient suffered from pains in the leg. A companion suit was brought by the husband. The actions have been dismissed.

*Anderson vs. Ulrich.* The charge of malpractice in this case is that the plaintiff did not have surgical resistance, that she was sensitive to poison, and in applying protein sensitization tests, improper dosages were used, resulting in twenty-nine ulcers. The improper dosages, if any, were administered by the interne at the Minneapolis General Hospital. The action has not been pressed and is pending.

*Ritter vs. Barber.* The charge of malpractice in this case was that Dr. Barber failed to administer tetanus antitoxin in the case of a boy injured by a toy pistol. The accident happened about July 4th. The boy died of tetanus. A jury verdict was rendered in favor of Dr. Barber.

*Lorenz vs. Lerche.* In this case the plaintiff had fractured his leg and the fracture had been reduced by another

physician and surgeon. When the plaintiff came to Dr. Lerche there was fibrous union and inapposition of the fragments. Dr. Lerche performed an operation for bone graft. The charge of malpractice against Dr. Lerche was in advising an operation and in applying too tight a cast, all resulting in a case of non-union with ankylosis of the ankle joint. The case was first tried by other attorneys and a verdict rendered in the sum of \$15,000. We took charge of the case on appeal, with the result that a new trial was granted. On the second trial, the verdict was \$2,500.

*Evju vs. Meckstroth.* In this case the plaintiff suffered a fracture of the tibia and fibula. Dr. Meckstroth reduced the fractures, applying a cast. Suit was brought, and the charge of malpractice was that inapposition, requiring a second operation, which was done by metal plate. After a trial of several days, the case was settled in the sum of \$3,500, under the rules of the Association in such case made and provided.

*Pettit vs. McGroarty.* The charge of malpractice is that Dr. McGroarty negligently diagnosed the illness as dysentery and administered improper dosages, resulting in the death of the patient, a child eleven years of age. The action is pending.

*Gray vs. Johnson.* In this case, Dr. Gray brings suit for his fees. There is defense of malpractice, the charge being that Dr. Gray failed to properly care for a hand mangled in a corn shredder, with resulting infection and necessitating amputation of the index finger. The charge of malpractice has been dismissed.

*Korman vs. Hagen.* The charge of malpractice in this case is in the fracture of the femur of the infant in premature delivery in childbirth, resulting also in Erbs paralysis. The action and the question of liability is pending in the Supreme Court.

*Backlund vs. Conner.* The charge of malpractice in this case is in the severing of the tri-facial nerve in mastoiditis. The action has not been pressed and is pending.

*Hunt vs. Reih.* Drs. Hunt & Hunt brought suit for their fees, and the defense of malpractice has been interposed. The defendant was being treated generally by the doctors, and the malpractice in the pleadings is not specifically stated. A motion is pending to make the same more definite and certain. The charge of malpractice seems without merit. The action is pending.

In addition to the foregoing, a number of legal opinions have been rendered to the Association bearing upon various questions and some legislative work has been done in co-operation with the legislative committee. A few claims

of malpractice are pending taking the form of correspondence, but no action has been brought thereon.

Very truly yours,

OPPENHEIMER, PETERSON,  
DICKSON & HODGSON,  
By George W. Peterson.

Report of Secretary read by Dr. E. A. Meyerding.

Report of the Treasurer read by Dr. Earle R. Hare.

Dr. W. F. BRAASCH (Rochester): The report of the Finance Committee of the Council is as follows: We would suggest that the Council recommend that these reports be laid on the table and referred back to the Council for consideration at the end of the fiscal year. We make this recommendation because with the meeting that breaks into the fiscal year it is practically impossible to look over our financial reports and balances at this time of the year. If we can let it go until the end of the year, until October first, there will be a special meeting of the Council about then to go over the reports in detail at that time. I move you that this recommendation be accepted.

Report of Dr. J. C. Litzenberg, delegate to Congress on Medical Education, Medical Licensure, Public Health and Hospitals, read by the Secretary:

April 25, 1925.

To the President and House of Delegates,  
Minnesota Medical Association.  
Gentlemen:

Your delegate to the Annual Congress on Medical Education, Medical Licensure, Public Health and Hospitals, begs leave to submit the following report:

A meeting was held in Chicago, March 9 to 12 inclusive, 1925. A detailed report of the Congress has been printed in the Journal of American Medical Association. Therefore, I shall not attempt a complete review of the work of the Congress, but shall simply take time to point out a few important factors.

The Congress is composed of the Council on Medical Education and Hospitals of the American Medical Association, a federation of two medical boards and the American Conference on Hospital Service, and the Bureau of Health and Public Instruction.

The most interesting factors of the program on the Council of Medical Education and Hospitals was the symposium of the twenty-five years progress of medical education. It is hardly necessary here to make any remarks about the progress of medical education in the last quarter of the century except to say that there is a strong feeling in certain quarters of the American medical profession that medical education has been over-developed; that the curricula of the medical schools have been increased too much, and that the average medical school is giving too much attention to the development of specialists and not enough to the general education of general practitioners. This opinion is not universally accepted, but there is a certain unanimity of opinion that the medical curriculum should be revised, led by Dr. William Allen Pusey, president of the American Medical Association. Many men believe that there should be a radical change in medical teaching, even to the extent of cutting out the pre-medic college preparation, and also advocating material shortening of the medical schools, basing their arguments chiefly upon the lack of

rural physicians. The conservatives, however, believe that while the medical curriculum may need revision it should be done only after a thorough survey of the situation. Some such surveys have been made, one of which was in the state of Minnesota by Dean Lyon of the Medical School. Dr. Lyon reported that the exaggerated lack of physicians as reported by some states does not exist in Minnesota except in the thinly populated sections of the state which could not support a physician, and he suggested that this was rather a sociological problem than a problem in medical education. The conservatives believe that the problem of rural medical practice is not due to a lack of physicians, but due to an improper distribution of physicians. It is the opinion of your delegate that too many of the arguments on both sides are based on insufficient data, and that a survey made by each state is necessary before a wise conclusion can be made. This was particularly emphasized in the paper by Dr. Raymond Pearl, of Johns Hopkins University, who analyzed the report of the General Education Board which had made such a survey. Dr. Pearl's conclusions were that distribution of physicians was entirely an economic one. Your delegate recommends that every physician in the state of Minnesota read the paper of Dr. Pearl which appeared in the Journal of the American Medical Association. He also recommends that data necessary to the solving of this problem be collected by the secretary of the Minnesota State Medical Association.

Respectfully submitted,

JENNINGS C. LITZENBERG.

Dr. R. E. Farr's report for the Editing and Publishing Committee read by Dr. J. T. Christison:  
Minnesota State Medical Association:

It gives me pleasure to present this, the eighth annual report of the income and expenses of MINNESOTA MEDICINE. The following report covers the seven months elapsing between the 1924 annual meeting of the Minnesota State Medical Association and the present meeting.

The seven numbers of MINNESOTA MEDICINE published since the preceding annual meeting have contained the largest number of pages that have ever been printed in a like number of issues. The last seven issues of the journal have contained an average of nearly one hundred and twelve pages each issue. There has also been a slight increase in the number of original articles published in the journal and a larger number of illustrations than have ever appeared during any similar period. We have published sixty-eight original articles since the October, 1924, meeting of the Association, averaging nine and seven-tenths each issue. There have appeared in the journal, one hundred twenty-nine illustrations during the past seven months, or an average of more than eighteen illustrations each issue. We are publishing twenty-five hundred copies of MINNESOTA MEDICINE monthly. The distribution of these copies is approximately as follows: Members—Minnesota State Medical Association about 1,950; paid subscriptions outside of the state of Minnesota, exchanges and advertisers, 404. Six copies are mailed each month to the American Medical Association and fifty copies are placed in the permanent files. The remainder is used for advertising solicitors, sample copies and to supply subscribers with misplaced copies or those lost in the mail.

During the past seven months MINNESOTA MEDICINE has averaged about thirty-five pages of advertising an issue and we are now carrying an average of forty pages display advertising each issue. The total gross display advertising executed in the journal for the past seven months amounts to \$6,070.66. This is by far the best showing we have ever been able to make. At the present time we are averaging in display advertising, gross, close to \$1,000.00 an issue, and there are represented in the advertising pages of MINNESOTA MEDICINE nearly one hundred firms. And it should be borne in mind that we are restricted in the solicitation of advertising to those firms and products conforming with the rules and regulations of the Council of the A. M. A.

You will observe that the surplus for the seven issues published since our last annual meeting amounts to \$1,337.39 and that we have taken credit in subscription allowance from members of the Association of only seven-twelfths of a year.

Respectfully submitted,  
EDITING AND PUBLISHING COMMITTEE,  
R. E. Farr, Chairman.

Report of the Committee on Public Policy and Legislation was read by Dr. H. M. Johnson:

To the President, Officers and Members of the House of Delegates of Minnesota State Medical Association:

Your Committee on Public Policy and Legislation desires to make the following report:

First, that we have accomplished that which we set out to do, namely, secured the passage of Bill known as Senate File No. 241, which decreased the period in the Statute of Limitations from six to two years for the commencement of malpractice suits against doctors, dentists, hospitals and sanatoriums.

The passage of this Bill should be of great value to the medical profession, because, in the first place, after examining the private files of the medical insurance companies, we found their records showed that one-third of the suits were brought after two years and that nearly all of these were of the blackmailing type. Several were brought within a few days of the expiration of the six year period. Such late suits left the party sued in a defenseless position, as his witnesses were far away, his evidence in many cases lost or destroyed. This fact seems to have been discovered more and more by the ambulance chasing type of attorneys, as these were the particular type of cases which seemed to be on the increase. Also there were apparently many cases settled out of court. Records further showed that malpractice suits had increased about three hundred per cent the past five years and that they were still going strong. The larger increase was in the cities, but it was spreading fast into the country districts.

Three insurance companies had left the state. The Medical Protective Company told us they were going to leave the state unless some legislation like this could be passed, as they could not be protected properly. Among the companies staying with us, the Medical Protective Company was probably the only one which had not raised its rates and that charged the same rate in Minnesota as in other states. While the rates of some companies were much higher in Minnesota than in surrounding states, they

probably were not too high in proportion to the difficulty of defending us. The Medical Protective Company claimed they had been losing money in Minnesota, but their loss had been absorbed by the business in general, as they do business in every state in the Union. Of the other companies staying with us, some charged \$47.50 in Minnesota for the same policy that the men in Illinois were paying \$20.50 for.

Eventually these companies which have raised their rates should come down in their charges and I am free to tell you that I believe if this law had not been passed, the Medical Protective Company would have pulled out of the state and these other companies would have raised their rates to about \$75.00, as they decided at one time to do—April 1st, 1921—for the same policy which in other states they received something over \$20.00 for. This information in regard to the intended rates was obtained from the March 10, 1921, issue of the National Underwriters.

The saving to the profession is hard to estimate, but figuring the insurance rates and believing those companies which have raised their rates will eventually be able to lower them,—the money paid out either in settlement of judgments or in cases settled out of court,—it probably will run from \$50,000 to \$100,000 a year, possibly more. The mental worry and anxiety caused by these blackmail suits are something that cannot be figured in dollars and cents, but if they could, we should consider them of a great deal more value.

Your committee when it first began work wrote letters to the different insurance companies requesting information so it could have facts to present to our legislators, without which it would have been impossible to get this bill passed. The company which has not raised its rates in Minnesota—the Medical Protective Company—was the only company that aided us in any way toward the passage of this bill. The others simply ignored our request. While I have no favorites as to insurance companies, it is only right that the medical men of Minnesota should know who helped us in our hour of need in getting legislation which we both desired and badly needed.

So far we have reported on constructive legislation, but what bothered us as much was destructive legislation. Through legislative friends we were able to learn of many proposed bills and on interviewing the man picked to introduce the bill, we were able to show him that such a law was not for the benefit of the people of the whole of Minnesota, but for the fostering of some special interest. Oftentimes a member is induced to introduce a bill by his home constituents that on the face of it looks harmless but has hidden teeth. And on your committee's explaining the bad features of it, they expressed surprise and I know of a couple of bills that died in committee at the suggestion of their author.

I may add that your committee spent a good deal of time here in preventing the following bills from being passed and I have no doubt but several of them would have slipped across if the matter had not been given personal attention:

*The Chiropractic Bill, Senate File No. 282*, reduced the course of instruction as it now stands from three years of eight months each to three years of six months each and in

addition permitted any chiropractor already licensed in any other state to be allowed to practice in Minnesota upon application and a small fee. While the bill limited chiropractors to manipulation of the spine and sounded all right, they probably would, in the end, do everything, as the chiropractors are now doing, and it would have opened all doors so that all kinds of poorly trained chiropractors who stood ready to enter the state and flood it, could have done so.

*The Hospital Bill, Senate File 973.* The passage of this bill was also fostered by the chiropractors and other cults. It would not only have permitted them to take their patients to hospitals, but would have given them the full use of x-ray machines, laboratories and the service of all trained employees of the hospital staffs, such as radiologists, laboratory men, etc., as well as ambulance service. This would apply to all city hospitals, the University Hospital, Phalen Park Hospital or any hospital in the state which receives full or partial aid from the city, county or state, in any way. This would likely have been an entering wedge for them to get entrance to all hospitals. This bill was actually recommended by the Public Health Committee of the Senate to pass, but was checked in the House.

*The Contagious Hospital Bill, House File No. 850,* which provided that a contagious hospital could not be erected within 1,500 feet of a public park, at first applied only to St. Louis County and as we were not looking after the hospitals in particular and heard nothing from the county to which it applied, the bill was passed as such, but vetoed by the governor.

Then the bill was re-introduced to apply to the whole state of Minnesota. Of this new bill we took notice and also the chairman of the Legislative Committee of St. Louis County came to St. Paul. In the fighting of this bill we took quite an active interest, after we saw what was going to happen. It slipped by the Public Health Committee of the House and was passed under suspension of the rules in the House,—before even the members themselves seemed to know what they had acted on, as it had gone through in such a hurry. The Senate Committee, which recommended anything and everything, recommended this also and we had it on our hands to fight and only got it disposed of the last night of the Session—about 12:00 o'clock. In spite of all our precautions and preparations, the last step of which we took that evening and during the night, in the excitement they pretty nearly slipped it over and would have if I had not been there fighting it.

*The Anti-Vaccination Bill, Senate File No. 935,* simply attempted to repeal a law which we have now which provides that unvaccinated children may be excluded from school during an epidemic of smallpox. The bill was recommended not to pass by the Committee of the House, although the Senate Committee had recommended it.

*The Anti-Vivisection Bill, Senate File No. 1160,* would have prohibited—you might say—all experimental work on animals and simply put our medical schools in a position where their hands would have been tied. On a public hearing of this bill it may surprise you to know that the House chamber was so filled, including the galleries, that there was barely standing room and the halls were jammed with people who applauded the proponents of the bill and

more or less jeered the opposition. I had not believed there were so many nuts in the Twin Cities as I saw there. However, a public hearing, I may tell you confidentially, is only, as far as the legislators are concerned, a public show, at which everybody can shoot his fireworks, and I think these cults especially enjoy it.

*The Naturopathists Bill, Senate File 1146.* The Naturopathists are simply a new cult that seemed to have all the knowledge of all the other cults,—besides several new additions. Their chief claim, however, is that they are going to cure everything without medicine. Even this bill, as unreasonable as it seems to us, had its friends, who tried two or three different times to get it raised that it might be passed.

*The Full-Time State Employees Bill, Senate File 1064,* provided that any employee of the state on full time who did any outside work for which he was paid would have to give the money thus earned to the state. This would have affected our medical men at the University and some of our profession at the state institutions like the Insane Asylums. However, its author, when his attention was called to what it would mean, was kind enough to let it go to sleep.

I wish to call your attention to a bill known as the Reed-Johnson Bill—which looks to me like the beginning of the boldest attempt to socialize our profession,—as passed by the National Congress in the last Session during the closing hours.

This bill provides that any ex-soldier, including those who took part in the Spanish American War, the Boxer Rebellion and the World War, may receive from the government irrespective of relation to service or ability to pay:

1. Free medical examination.
2. Free medical and surgical treatment.
3. Free hospitalization.
4. Transportation and all traveling expenses.
5. Full pay during the time he is traveling and during examination and treatment.

This bill will be discussed by Dr. Carl B. Drake.

Your committee found in the beginning that there was very little organization to give us help from the medical profession, even though we had so called legislative committees, as so many of them were dead and not functioning. Out of some sixty-five letters sent out to members of Legislative Committees, Secretaries, etc.—letters were sent to those whom we believed to be the most live ones in the profession—only fifteen replies were received and some of these too late to do us much good. However, as things progressed and we kept bombarding members with letters, long distance telephone messages and telegrams, they began to wake up more and more, especially in the Twin Cities and other large cities in the state, and became quite active, due largely to the more active interest taken by their legislative committees. Our records show that the Upper Mississippi Valley Society was the first of the country societies to take a real active interest in the legislative work, followed closely by the Blue Earth Valley Society, and for the work they did they should be highly complimented. There were other men through the state, some on committees and some who were not, who were very efficient and a great deal of credit is due them.

A word about our legislators: I cannot help but feel that our legislators, as a class, are greatly misunderstood. Instead of being what the newspapers make them out to be, men who just idle away their time and pass anything that comes up before them, I want to tell you they are hard-working, earnest, able men, as hard-working and underpaid a class of men as I know of; in fact they are the outstanding men of their communities,—otherwise they would not be here. They are the type of men we must show that what we ask for is right, which is as it should be.

The fact is they do not understand medical legislation, any more than we would understand legislation for some other scientific body, but they apparently are appreciative of being informed along this line and I do not feel that the Medical Association need hesitate to keep a man in St. Paul during the session to properly inform our legislators in regard to our stand on different bills.

The Legislative Committee appreciated the valuable aid, assistance and advice which was always willingly and cheerfully given by former chairmen of the State Legislative Committee—Doctors J. T. Christison and F. J. Savage. We followed in their footsteps and continued the work along the lines which they had worked out. It was certainly along the right lines and it is absolutely necessary to have good legislative committees, as this makes it easier to get direct contact between doctors and their senators and representatives.

In order to get legislation the committee must have great freedom of action—in fact they must practically have power to act as they see fit and then be responsible for the result—which to the credit of your President, Dr. W. L. Burnap, he gave your Legislative Committee; not only that, but his advice was freely given and his presence and aid here many times to encourage us in our work was surely appreciated.

I feel that our medical men should take more interest in politics, especially as to legislators, and that for legislative purposes the state should be re-districted so the districts will be the same as the legislative districts,—which generally are represented by one senator and two representatives—that the family physician of every senator and representative be known and if possible on the legislative committee. This is a direct personal contact which should not be overlooked. That the society should raise its dues not less than \$3.00 to \$5.00 per year, so they will have money to keep a man in St. Paul—who should be a regular practicing physician—during the entire session and that he be given wide powers. While my time is being donated to the Association by myself and firm, you can probably not often get a man to do this usually and you should be prepared to pay him, and then allow him a liberal expense account. There is nothing our legislators detest as much as a tightwad, as they are not tightwads themselves. A good many of our legislators spend a thousand dollars more than they are paid, their salaries being only \$1,000,—at least so they tell me and I have every reason to believe it is true.

Your representative must be very carefully chosen, for if they don't like a lobbyist they hold it against what he represents and take no interest in it. Many men doing lobbying here do their cause more harm than good. I would suggest that the representative stay in the hotel which is the political headquarters and where most of our

legislators stay, that he have an office room and a stenographer there, as we have done during this session.

The place to do such work is not at the Capitol, but from your headquarters. Legislation is not obtained by buttonholing every man, but by getting legislators and senators to do work for you, in looking after the interests you represent. If they like you, they are like other men, they will go out of their way to do you favors and help your cause—if they don't, you are up against a stone wall and you might as well pack up and go home.

The reason I am recommending and urging these things so strongly upon you is that there was more cult work and there were more cult bills introduced this session than at any previous session. There were other bills which were prevented from being introduced by our presence there. For instance, the chiropractors had begun during the campaign to make arrangements for having a bill introduced which would give them the right to take care of contagious diseases, sign birth and death certificates, and possibly do obstetrics. The prevention of the passage of such a bill could only be valued in millions of dollars to the real profession.

We simply are at the turn of the road—either we must get ready to do business in a practical way or be walked over by this class of cults. The chiropractors were putting up from \$25.00 to \$100.00 apiece for legislative purposes, but if we go after things and do them along the lines I have suggested, do them, not think about doing them, I think we can simply dictate for them such laws and rights to which their training entitles them and no more.

We wound up the passage of our bill with a banquet at the Minnesota Club, to which were invited the governor, lieutenant governor, speaker of the House and the authors of our bill, as well as the professional members of the House. It also was attended by members of the Legislative Committees in the Twin Cities and nearby towns as well as doctor friends of the authors from different parts of the state. Speeches were made by all our guests and a good many of the doctors. The banquet was a very informal affair, but everybody seemed to enjoy himself and I feel I can assure you that the Medical Association is on the map, as far as our legislators are concerned, and that all we have to do is to watch our footsteps and do things in a practical way, as they should be done. As long as we do this the Medical Association of Minnesota will stay on the map.

As to the members of the Legislative Committee of the state, I wish to state that Dr. Theo. Bratrud spent quite a little time here and it was his intention to spend a good deal more, but owing to being called away into court to help prosecute some quack and on account of sickness, he was unable to be here as much as he wished, but his work must not be forgotten and should be highly appreciated.

Dr. C. B. Wright, of Minneapolis, looked after the Minneapolis men and never failed to respond to the call of duty, whether it was during the day or in the middle of the night, as oftentimes occurred.

Dr. C. L. Scofield, our honorary member of the committee, did everything he was called upon to do.

The secretary of our committee, Dr. E. A. Meyerding, aided us at any and all times as much as he possibly could, cheerfully and willingly.

I can only pay the highest compliment to the willing and intelligent work of the different members of our committee.

When I speak about millions, I do not want you to think I am flighty, because when you figure, say 3,000 men in the state of Minnesota, just the small sum of from \$25.00 to a few hundred dollars on an average being annually taken away from these different men by the cults or by ambulance chasing lawyers, how long does it take to run up into millions?

The trouble with the Medical Association is this, we are a great body of men—we are a great corporation—and the thing that affects the individual only in a small way represents millions of dollars when you consider the whole body of medical men in the state, therefore we must not consider a few dollars when it comes to expenses in getting protection for our members but regard this slight amount that you add to your dues as a small insurance premium that you are paying to protect your business. We are donating to everybody else,—why should we not donate a little to ourselves?

We make this appeal to you, not for personal reasons, because most of us are old and might be able to live without being actively engaged in the practice of medicine, but more for the younger men who are entering the profession and whose future welfare depends more or less upon what we do today, as a good beginning in protecting ourselves and putting our Association on a business basis. I would hate to have our younger men say some day that if we older men had only been more farsighted and taken the proper steps before it was too late, we would not have been placed in the position that we now are,—which might be social medicine.

Therefore, your Committee on Public Policy and Legislation makes the following recommendations:

1. That our medical men take more interest in politics—especially as to members of the House and Senate; that for legislative purposes the state be re-districted to correspond to the legislative districts; that the legislative committee of the state shall have power to appoint in each legislative district a representative to co-operate more or less with the local society, but who shall be in direct contact with and be responsible to the state legislative committee.

2. That the Reed-Johnson Bill be taken up with the American Medical Association through our representatives. That we be ready to co-operate with them in national legislation; that the State Medical Association should have the money and be prepared to contribute its share to the expense in looking after national legislation.

3. Recognizing the necessity which confronts the medical profession of the state, for maintaining a physician at the Capitol during the session of the legislature, to look after our interests during this period, that a fund be created for this purpose by raising the dues of each member of the Association the sum of three dollars (\$3.00)—this in addition to the present regular dues.

4. That if it is decided to take an interest in national legislation, two dollars (\$2.00) more be added to our dues,

for the purpose, so that Minnesota will be in position to take interest in national legislation.

Respectfully submitted,

H. M. JOHNSON,  
Chairman.  
E. A. MEYERDING,  
Secretary.  
THEO. BRATRUD,  
Warren.  
C. B. WRIGHT,  
Minneapolis.  
C. L. SCOFIELD,  
Benson.

THE CHAIRMAN: I want to stop for a minute if you don't mind and call for another report. There is one able lieutenant that Dr. Johnson and this committee had, who is the chairman of the dental committee on legislation, who co-operated in a wonderful way. We have asked him to come over here just a minute and give us a word. So I will call on Dr. Naegeli now.

DR. WM. C. NAEGLI (Minneapolis): As your President said, I am simply a second lieutenant. I have been working under the general over there during this whole legislation period, and due to modesty on his part he asked me to bring up certain things that we have been bumping up against all the time over there. One of them is to bump up against a man, a legislator, whom we can't get in touch with either through the dentist or through the physician. As it happened, some men Dr. Johnson could not get in touch with directly through the family physician—or there was no family physician in the case—we were able to get in touch with through the dentist. Due to that condition coming up again and again and due to the fact that we have more or less common interests—wondered whether it would not be a good thing for the chairman of the medical legislative committee and the chairman of the dental legislative committee to work together in harmony. That's what we did in the past; without any official sanction from any of the bodies we worked together. Whenever Dr. Johnson wanted me to get in touch with any men to convince them to work for your bill, we did so. Likewise if any of our bills came up and there were men that he was able to get in touch with, he did that for us. We found that interlocking that way helped out both of us.

The question of raising dues and having a common fund is important. Now I was placed in the position over there without any funds. I was told in a roundabout way that I might get money and I might not. But as Dr. Johnson says, the legislators hate a cheap skate. The only time you can get them is to take them out to supper when they have a few minutes of leisure. If you try to buttonhole them at the Capitol you are simply hurting your own cause. There is no question but that it is necessary to have a common office at their main headquarters and work through their headquarters. I suggested to Dr. Johnson that if you men favor it and you have a fund and we have a fund the expenses of that headquarters might be shared between the two societies, in that way lowering somewhat the expenses for each society. We could have a room in common, an office in common, just during that period of time, and that would save expense for all of us. I have spoken to the

officers of our society. They haven't had an official meeting in the house of delegates yet, but that will be one of the matters brought up, providing that you men take some action along that line and show any desire to co-operate.

Then the question of entering into politics. There were men that left the legislature and told us before they left that they were coming back in two years to put over some of the bills that they failed on this year, and that they were going to get out and work, and that they were indirectly going to try to get some of our friends out over there so that they wouldn't be back in office again. They are going to spend money to put that across. As far as the dentists are concerned, we know that advertisers have a fund a little better than six thousand dollars which is going in for political purposes. Now if we can't get out and combat that in some way so that we can get in touch with our senators and representatives before they are elected, if we are going to let the other man help them through politics and are going to sit back and watch them be put over and then afterwards ask them to give us some support, they are going to help the men that put them in office.

Then there is another question and that is showing some appreciation. Those legislators are just as human as the rest of us. We must show them appreciation for what they have done for us in the past, and not simply go over there and ask them to work on a bill for us and after the bill is over simply forget all about it. We have got to get out and let them know that we appreciate what they have done. It is up to the men in the home town, the family physician or the family dentist, to get over to see that man personally and shake hands with him and tell him that we appreciate what he has done for us. Dr. Johnson and I both found that they came to us and said, "Well, you fellows come back here every two years and you want something but you never do anything for us, and after we do something for you we never hear from you again." They get angry. One of the proposers of the bill for the statute of limitations said, "I don't feel like going on this bill. You fellows are asking for things and we go out and work and after we get through what do we get out of it? You don't even thank us for it."

Those are just a few of the little things that Dr. Johnson I know didn't care to speak of and he asked me to mention, things that we have been bumping against together all the time. There is nothing that Dr. Johnson and I would appreciate more than if it was possible to have the two legislative committees work together and have a common fund or have a fund so that the chairmen could draw on it for the benefit of both, and if we had more than we needed and you fellows needed any help, why our money could go over and help you men. I know that you men have more bills coming up every year than we do, but every bill that affects you, as I said at the beginning, will affect the dentists. You can't get away from it. Some way or other it will affect us. We even suggested further that it might be possible to get the assistance of the pharmacists and perhaps hospitals to work together, because what affects one is going to affect all. Of course Dr. Johnson says the increase in the cults and quacks of every kind is getting stronger year after year. Unless we get out politically and help

our senators and legislators they are going to slip bills over on us; and we are not going to have Dr. Johnson over there all the time to stop things as we have had this year.

**THE CHAIRMAN:** I would like to call on Dr. Christison, who has worked a long time on this same line of work, for some remarks.

**DR. J. T. CHRISTISON (St. Paul):** I don't quite understand why the President calls on me to make remarks about this legislative material. Those of you who were in the House of Delegates last year may remember that in my report as chairman of the legislative committee last year I strongly recommended that a full time man be appointed. Having been chairman and member of legislative committees for a good many years and having been in touch with legislative committees of the medical societies of other states where that obtains, I realized the importance of such a measure. Little did I dream, however, that we were going to have a man like Herman Johnson who would come down here from Dawson and camp on the trail of those legislators and spend his money and call us up at six o'clock in the morning or twelve or one o'clock at night, whenever the fancy moved him, and say now you get busy on this or get busy on that. I think Dr. Savage will bear me out when I say that when Johnson said get busy we got busy.

The results speak for themselves. I am not going to try to tell you what has been accomplished or how it was accomplished, but I want you to carry this one point away with you: keep in mind that all these chiropractors and all these osteopaths and all these naturopaths, or whatever they call them, are all making a living; the people they are treating, under whatever guise, should by all rights belong to you and to me. I appeared before the committee of the house and ended my remarks up there that night by saying that the first mistake the state legislature made was to dignify the osteopath and chiropractor with a board of examiners. Now unless we have someone on the ground who has or will make a number of friends in the legislature, and unless we are willing to spend some money to do it—because you have got to do it in order to accomplish results—we are not going to get anywhere. The bills that were killed this year mean a lot more or at least quite as much as the one that was passed, and those bills are coming up periodically. They have paid men who go before the committee and ask for public hearing and take up the time of those men. It is true it doesn't mean very much to them personally but they have got to make a showing.

Each one of us must resolve himself into a committee of one, if you please, to see to it that we don't lose sight of the fact that the doctor's business is to get into politics a little bit and find out what manner of man is going to represent him in the legislative hall. Understand this: these gentlemen of the legislature are not a common herd of men, not by any means. They are gentlemen of the first water, at least the majority of them are. They are men that you are glad to meet, glad to sit down and have dinner or luncheon with, and that's the only way that you can get their ear. You go up to the Capitol and say to Representative Peterson or Representative Johnson, "I want to talk to you for five minutes"; you might just as well stay home. You have got to invite these men to little

gatherings here, little gatherings there, and talk to them and show them your point of view. Don't ask anything that is unreasonable but let them understand that you are asking for only what is right and you will get them every time.

DR. C. B. WRIGHT (Minneapolis): As a member of this committee, which was my first experience in legislative matters, there is another point that Dr. Christison didn't emphasize and that is this: No matter how good the full time man we have, no matter how bright or how capable he is, there is one thing that he is going to miss that Dr. Johnson didn't, and that is that he lived with these men. In my opinion that is the way he accomplished his purpose. I have talked to him a lot and I know that he spent night after night in these men's rooms and they in his room until twelve and one o'clock talking not over medical legislation alone but over every type of legislation. I happen to know that his advice was often asked on important legislation which had nothing to do with medicine but which is very important to every citizen of the state of Minnesota. For instance this reorganization bill. I know that a lot of men came in and discussed it with him, and that he was at a number of meetings at which this thing was discussed in a very private and quiet way. I believe that that is the most important thing of all.

Now Dr. Johnson of course has done something which very few men would do, and that is for three months to go to a hotel, hire a couple of rooms, have a stenographer, invite these men in and talk to them every night, dine with them, spend his whole time hobnobbing with these men. He made a lot of friends. He made a lot of friends for the medical profession. I learned something there. In addition to having a full time man for this particular purpose I am thoroughly sold to the idea of having a man from the country. The average city doctor and the average city man doesn't know the psychology of the country legislator. I think as a rule they look down upon him. They think he is a man of inferior ability. Because he may not wear the latest cut of clothes or because he doesn't have the latest form of slang, they think he is a man of inferior intelligence. In my opinion the country legislator is a more intelligent man as a rule than the type of legislator that represents us from the cities because in the country going to the legislature is looked upon as an honor. Those men feel their responsibility, and although they may not be informed on all of the things with which they are dealing still they give them very sincere consideration. The men in the cities I am sorry to say are not the best men in the community, nine times out of ten. There are very few big men in the cities who will go to the legislature; they don't want to be bothered. We are represented to a large extent by the ambulance-chasing attorney who is anxious to get into the legislature because he knows that he can get through stuff and can make friends and do things for which he gets some notoriety and some prestige.

Therefore I thoroughly approve of this method of having a man in addition to our full time man if we can possibly do it. I hope Dr. Johnson will do it again. I am thoroughly sold to this idea that to get legislation you have got to have someone who knows the psychology and who knows the importance of how to approach these men.

THE CHAIRMAN: Any further remarks now? There is one thing we should call your attention to in regard to adopting this report and that is it involves a financial matter. He recommends an increase of three dollars in one case and five dollars in the other. As we interpret our Constitution the House of Delegates can do that by a four-fifths vote if you desire to increase these dues, but it should be referred to our Finance Committee of the Council and be acted on later. Now I don't know just exactly how you want to proceed with that. We could adopt it outside and bring it up tomorrow.

DR. F. J. SAVAGE (St. Paul): If I might be permitted to modify that motion in order to bring out the object of this increase, I would like to modify that in this way: "That this increase in dues be used for the creation of a fund to be known as the Public Health and Legislative Fund; that this fund be used at the discretion of the Council for maintaining a representative of the medical profession in St. Paul during the session of the legislature, and for such publicity and public health education work as the Council may determine." That simply specifies what this increase is to be used for.

Motion seconded.

DR. W. A. COVENTRY (Duluth): I would like to ask how much you are going to increase the dues according to this motion. You said three to five dollars. I think a blanket increase in dues ought to go before the Council. Those recommendations according to my understanding should be referred to the proper committee. What they suggest or recommend I am in favor of, but I think this blanket way of slipping them along is very indefinite and doesn't get us anywhere.

DR. C. C. BELL (St. Paul): This is certainly a very important matter. Why not leave it until our next meeting so that we may have time to think the matter over? I think we are all in favor in a general way of the proposition but it is a very important matter when it comes to taxing every member of the state society three to five dollars. I think we should give some consideration to it. For that reason I suggest that we refer the matter over until our next meeting.

DR. C. B. WRIGHT: I would like to amend that motion if I may, that this be referred to the Council for consideration and referred back to us tomorrow.

THE CHAIRMAN: Did anyone second that amendment?

DR. COVENTRY: May I ask: Refer the whole report or the recommendations? I will second the motion if it means the recommendations to be referred to the Council and referred back to us and the report to be accepted as read.

DR. L. SOGGE (Windom): I would like to know what you intend to do with the medical defense before we vote on that and also the full time secretary. We ought to make some provision there. If we arrange five dollars dues here now and then have to raise them for the secretary it is going to be pretty hard to come back to our society and tell them that the dues have been raised that much. I think we ought to go a little careful.

Motion carried as amended.

Report of the Committee on Hospitals and Medical Education was read by Dr. N. O. Pearce:

Your Committee on Hospitals and Medical Education has had several meetings. The work of the committee has consisted of investigations of hospitals applying for registration on the accredited list for interns.

Up to this time, the hospitals under consideration have been St. John's of St. Paul, the Fairview Hospital of Minneapolis, and St. Luke's Hospital of Duluth. This work has necessitated the personal inspection of these hospitals by members of the committee and much correspondence with the Council on Medical Education and Hospitals of the American Medical Association.

Further the committee has followed out the suggestions of Dr. Litzenberg, formerly chairman of this committee, in his last annual report relative to the extension courses. A plan has been evolved as a joint enterprise between the Minnesota State Medical Society and the Medical School of the University of Minnesota; the administration end of the program to be carried out by the Extension Division of the University of Minnesota. It is the intention of the committee to offer this course in two centers, at first, with the idea of getting the details worked out before attempting to offer it generally throughout the state. Your president, Dr. Burnap, asked that the course first begin at Fergus Falls, and the necessary group of men have signed up for the course at this point. We are more recently informed that Moorhead has also perfected their arrangements and have approximately 40 men ready to attend. These two adjoining centers will furnish an ideal tryout for the plan.

Through our secretary, Dr. Meyerding, copies of this plan have been forwarded to the secretaries of all the county societies. The details of this plan are being worked out by a joint effort of your Health and Hospital Committee and the Committee on Short Courses of the Medical School, and it is their intention to select different groups of clinicians for each course as long as suitable men are obtainable.

At the last meeting of the House of Delegates, \$100.00 was voted towards preliminary expenses in organizing this work. While this has not been drawn to date, a good portion of it has been spent, and it is the desire of the committee, if the House of Delegates wish this work to be carried on, that they appropriate a similar sum for the committee's use next year.

Respectfully submitted,

N. O. PEARCE,  
Chairman.

THE CHAIRMAN: Now we have heard this report, and I can say that it was greatly appreciated by the places where it was offered. I would like to ask O. J. Hagen to tell how he got along up there at Moorhead.

DR. O. J. HAGEN (Moorhead): All I have to say is that we got the reports sent out from the Extension Committee and they asked us if we would take it, and we went on and took it. Up to the present time forty-five men have signed up, and I think they are going to enjoy it because they are going to get some good stuff.

THE CHAIRMAN: I think to have forty-five men signed up in three or four days is something big.

DR. BRAASCH: I move that the report be adopted, except the financial recommendation, which will be referred to the Finance Committee of the Council.

Motion carried.

Report of the Committee on Substitute Medical Defense was read by Dr. E. Starr Judd:

To the President, Officers and Members of the House of Delegates of the Minnesota State Medical Association:

I have the honor to submit herewith Report of your Committee on Substitute Medical Defense.

This committee has diligently made every effort to obtain all information possible and has considered the same carefully. The chairman and secretary by correspondence investigated the method of insurance in practically every state that has some form of medical defense. The chairman and secretary in addition visited the office of the American Medical Association, and discussed with those familiar with this subject the question at hand. A synopsis of this information has been submitted to all members of the committee for their study, also to all members of the council, and a copy is attached. The detailed information obtained is on file in the office of the secretary of this Association and may be seen upon application.

The committee called in Mr. Theo. Engstrom and Mr. Caldwell, representatives of the Aetna Insurance Company, to give further details concerning the group insurance plan, and also Mr. W. H. Oppenheimer, attorney for the Minnesota State Medical Association. These gentlemen discussed at length the questions in hand.

The chairman of this committee desires to commend to you the members of his committee for their zeal and interest in investigating this matter and attending meetings of the committee.

We submit herewith the following:

Sample copy of Physicians' and Surgeons' Liability Policy of the Aetna Life Insurance Company.

Letter from Aetna Insurance Company explaining details of contract.

Legal analysis of Mr. W. H. Oppenheimer of the Aetna contract.

Synopsis of material collected in investigation of medical defense in other medical societies.

#### RECOMMENDATIONS

The following are the Recommendations submitted herewith to the House of Delegates: (Explanation—Words in Capitals are new):

That the following be amended to read as follows:

Chapter XI—Medical Defense.

Section 1. The Council, with the advice and consent of the House of Delegates, shall make a contract (or shall be authorized by the House of Delegates to make a contract) with an insurance company for group insurance for the Minnesota State Medical Association for malpractice suits. Each member shall pay for the policy he selects. This group shall be known as "Group A."

Section 2. Active members of the Minnesota State Medical Association who do not wish to take group insurance, and who have paid all dues, assessments, and other charges assessed or levied by the Minnesota State Medical Association by paying \$5.00 per year in advance shall be entitled,

on conditions hereinafter specified, to receive, without personal expense therefor, legal advice and court service of an attorney or attorneys-at-law in the employ of the Association, witness fees for the purpose of conducting their defense in any court in this state, when they are accused of malpractice, or of illegal transactions in connection and the commitment of persons to institutions for the insane. This group shall be known as "Group B."

Section 3. Members not subscribing to the group insurance plan nor to the medical defense plan must defend themselves entirely at their own expense.

Section 4. It shall be the duty of the Council, severally or collectively, to investigate all claims of malpractice against members, to adjust such claims in accordance with equity where possible, and, if in their judgment an adjustment is impossible, or the claim is unjust, or the damage sought is excessive, to tender such help, aid, and counsel as they may see fit. They shall be empowered to contract with a member of the bar of Minnesota as legal counsel of this Association.

Section 5. The Council shall make an annual report to the House of Delegates at the annual meeting for the year previous ending December 31st. This report shall contain an enumeration of all suits or threatened suits for malpractice against members of the Minnesota State Medical Association which have been properly presented to them for action.

Section 6. The legal services herein provided for shall be granted only on the following conditions:

First: Any active member in Group B desiring to apply for malpractice defense hereby provided, shall immediately upon receipt thereof send to the secretary of the Minnesota State Medical Association, any letter, process of court, or other evidence of threatened litigation in connection with such malpractice case.

Second: It shall be the duty of the secretary to forthwith examine the financial records of the Minnesota State Medical Association, and if such member so applying is found to have paid all arrearages, dues, or other charges due the Minnesota State Medical Association for the year, he shall certify those facts to the Council of the Minnesota State Medical Association, and forthwith send to such Council the papers received from such applicant for defense, and such secretary shall forthwith return to the applicant, if he shall find that the applicant has paid all the arrearages due the Minnesota State Medical Association, a formal application for defense containing authority for the said Association through its attorney to defend the action and granting to the Association and its attorney sole power to conduct the defense thereof, and agreeing not to compromise or settle said claim for damages for said alleged malpractice without the consent of the Minnesota State Medical Association or its attorney. The said applicant shall furnish and return to the secretary with his application duly executed, a full, accurate, and complete history of his treatment of the case out of which the alleged malpractice arose, giving dates, names of witnesses, nurses, and other attendants, all of which information shall, upon its receipt by him, be forwarded by the secretary of the Minnesota State Medical Association to the Council of the Association.

Third: If, on the other hand, the secretary finds that any member in Group B so applying has not paid all arrearages as herein specified, then and in that case, he shall return at once to the applicant all papers or memoranda received by him from said applicant together with a statement that he is not entitled to defense and the reason therefor.

Fourth: It is further understood between each and every member of the Minnesota State Medical Association that under no condition or contingency will the Minnesota State Medical Association pay any sums awarded in settlement, compromise, or by any verdict against any member sued for alleged malpractice, and each member applying for the services of the attorney of the Association in any malpractice case, shall agree not to obligate in any manner the Minnesota State Medical Association or any persons connected therewith to the payment of any sums whatsoever for any purpose.

Fifth: The Minnesota State Medical Association will assume the defense in a suit for malpractice against a member of Group B only while he is such and when the alleged malpractice occurred subsequent to May 1st, 1925, and to the date on which the member joined the Association.

Sixth: The Association may decline to defend an action, where the claim of malpractice is entered as a defense to a suit for a bill, unless the attempt to collect the bill by suit is made within one year after the services were rendered.

Seventh: This chapter shall be in force on and after July 1st, 1925, and the year shall end on the last day of December of each year.

Respectfully submitted,

COMMITTEE ON SUBSTITUTE MEDICAL DEFENSE,

E. Starr Judd, M.D., Chairman,  
E. A. Meyerding, M.D., Sec.,  
H. Longstreet Taylor, M.D.,  
O. Th. Sherping, M.D.,  
E. H. Smith, M.D.,  
F. P. Strathern, M.D.

THE CHAIRMAN: Now you have heard of the committee, what is the wish of the House of Delegates?

DR. F. J. PLONDKE (St. Paul): I would like to ask what they will do with those men who have paid their dues up to this time who discontinue their insurance in the state society when they take out say the Aetna policy. What I mean is, say for example that I have had state protection up to this time. Suppose I have a suit brought against me some time during the next five years for something that I did in the last year, would the state continue to defend me or not on that account?

DR. JUDD: The state association is not liable.

DR. PLONDKE: No, the state is not liable but they are morally under obligation to do it. Now it is a question of whether we are going to drop this man right now—I am not talking for myself because I have additional protection, but I don't think that we have any right to drop that man at the present time and let him go without protection for the next five years.

THE CHAIRMAN: Well, what is your point? What do you suggest?

DR. PLONDKE: That the state should continue to defend him. That is the only thing we can morally do.

THE SECRETARY: For anything he has done up to date. You say six years for anything he has done up to this date.

DR. PLONDKE: Yes, up to this date, not in the future. Say if I drop my policy now, then of course the state is no longer under obligation to defend me but they are under moral obligation to defend me for the time of the statute of limitations, which I understand is six years.

VOICES: Two years.

DR. PLONDKE: I have investigated and I may be wrong. Someone said at a meeting the other day that Mr. Oppenheimer said it was only for two years. Mr. Johnson can tell us about that, but as I understand it that two years statute of limitations is not read rightly. I believe it goes into effect some time in June, and anything that is brought from that time on is two years and anything that has happened prior to that time is six years. I may be wrong on that but I don't believe that bill is read aright.

DR. JOHNSON: The bill takes effect three months after it was passed. It was passed the 27th of March at five o'clock. From then on no action can be instituted except within two years.

DR. PLONDKE: Yes; Dr. Johnson, what I had reference to, is that retroactive? Suppose I do something today that they will bring suit for after the 27th of June, can that only go for two years or is it for six years?

DR. JOHNSON: Six years.

DR. PLONDKE: I saw that bill as originally drafted and unless it has been redrafted that does not hold after two years.

DR. JUDD: Mr. Chairman, we had considerable discussion in our committee on just that point and so we got Mr. Oppenheimer. His opinion was that it went into effect immediately.

DR. PLONDKE: Well, whatever it may be, I think we are morally under obligation to defend them.

THE CHAIRMAN: I wonder if we should have a motion first before we discuss it?

DR. WORKMAN: I move that the report as made be adopted.

Motion seconded.

DR. C. B. WRIGHT: Isn't it true that a man has his legal rights? It isn't a question of moral right; it is a question of legal right to that extent. If we are obligated under this defense bill won't we continue to be just the same according to the statute? It isn't a question for us to discuss. We will have to defend or we will have to provide that protection which we have agreed to provide in so far as the law requires it, won't we, no matter what we do here?

THE SECRETARY: The opinion of Mr. Oppenheimer is that it stops when we pass the motion. We can stop it any time legally.

DR. J. FRANK CORBETT (Minneapolis): It seems to me that right at this minute we cannot terminate our present plan of insurance, otherwise it is inevitable that men will be left high and dry. If it is in order I would like to put an amendment to that: That we continue our present protection for two years and then after that stop it.

DR. JUDD: If we do that we will have to provide some more funds because we are pretty near broke in the society now. We can't go on the rest of the year; we have used all the money we have had. We will have to assess the society if we do that.

DR. BRAASCH: It seems to me that we ought to face this issue right squarely and say whether or not we will continue medical defense in the future. We can't do measures half way. We either should defend our members wholly and heartily and combine to defend them against legal suit or we ought to cut loose and not hold ourselves morally responsible for this purpose. It seems to me it is wrong in the first place that we are banded together to defend a man right or wrong. Furthermore, it puts us in the eyes of the public in the wrong light. Our purpose is different from that surely. Our purpose is for higher things than commercial gain. It seems to me that our men are fully protected by group insurance without our backing. It puts us in the wrong light before the public. Our dues are high enough as it is, and what we should do is to devote our funds to other purposes which will help us a good deal more: the purposes of education, such as Dr. Pearce has introduced; the purposes of legislation, such as Dr. Johnson has introduced; and half a dozen other things which would be of far greater importance than medical defense.

Therefore I move you that this report be amended, that the second clause be stricken from it, and that we take no further steps in medical defense. If we carry on the second class I am quite certain that we will be responsible just as we have been before, that the expenses will be the same. It has been claimed that probably a thousand members will take advantage of this Class B. I personally question it, and one man's opinion is as good as another's. But supposing there are only two or three hundred, \$3,500 was our bill last year, this year something like \$4,000, and it will be increasing. In other words, we will be paying our dues, all of us, for the defense of a certain small group, and it will be inadequate protection besides. Therefore, Mr. Chairman, as I said before, I make the amendment, and I hope this society will take radical steps and free ourselves from this thing once and forever.

Dr. Braasch's amendment seconded.

DR. F. L. ADAIR (Minneapolis): I agree heartily with Dr. Braasch. I think this society ought not to go into insurance features where we are the underwriters. In insurance of that type it is pretty difficult to calculate the cost. I think it is quite all right for this society to make arrangements for group insurance which it can offer its members, but for the society to undertake any longer to protect its members against malpractice suits I think is unwise.

DR. PLONDKE: I agree absolutely with Dr. Braasch. I never did think that the state society ought to meddle with insurance, but I still think, think more than ever, that we ought to protect those men who have had this insurance with us. We insured them for six years when we took their money, insured them for during the time of the statute of limitations. I am perfectly willing to discontinue the insurance according to Dr. Braasch's motion, but I do think that we ought to protect these men during the time of the statute of limitations.

DR. COVENTRY: According to Section I as suggested by the committee we may contract with an insurance company for group insurance. It seems to me that we could eliminate that and let every man carry his own insurance and forget about the medical defense entirely. If you adopt the report it seems to me you bind the society to make a contract with some insurance company for group insurance. Most of us already carry insurance. Now does that make it binding on every man to take this insurance? You give them an option on your report; but now you cut out the second clause and you don't have any option, you just take what they offer you.

THE CHAIRMAN: I will call on Dr. Judd. As I understand it, we have the privilege of taking Class A.

DR. JUDD: Yes; you are not obliged to take that at all. That is just a contract made with the individual. We just suggested that and recommended it to the members of the society. It doesn't make any difference how many members of the society take it; this company will issue a policy no matter how many members take it. They will give it to any members of the society who want it.

DR. SOGGE: Does it make any difference in the rate?

DR. JUDD: No, it doesn't make any difference; just the same no matter how many take it.

DR. TAYLOR: As a member of this committee I would like to say a few words in explanation. This contract that the Aetna offers us provides that the society shall have a voice in the choice of the attorneys, and they propose to take the same firm that we have been using in the past, men who are experts in malpractice work. It does get the policy cheaper for the individual members who take it than they can go out and get it for themselves. The policy runs to the society, but each man holds a copy. Every man who takes it gets a copy, but there is no obligation upon anybody to take it.

In regard to the Class B men who are to pay five dollars for simply the offices of the attorney and witnesses in their cases I would like to call your attention to this line out of the second article of our Constitution which defines the purposes of this Minnesota State Medical Association. One of these is "to guard and foster the material interests of its members and to protect them against imposition." Now I feel that there are a large number of members of this society who should be protected by the society from malpractice cases. Men who are not expecting them, who are possibly not practicing surgery and are not much given to having malpractice suits, might be caught unawares, and it would be most disastrous to them and their families if such a thing should happen. I believe that a state society that is going to be successful must do things for its members, must offer its members some material reasons for remaining in its ranks. The five dollars that these men paid would in all probability meet all the requirements. We would not as Dr. Braasch suggested be responsible for any except the gentlemen who paid for their defense. We would not be responsible for the defense of the others, and consequently the bill that would have to be met for attorneys' fees must be greatly diminished by the number of men that would take it. The protection offered by the group insurance pays also any possible verdicts that may be rendered against them.

I believe that it will materially increase the interest in the society. It will hold the men together, and it will be a good thing for all of us and it won't cost us anything. Every man would pay for what he gets. Those who want to pay \$21 or \$28 for the group insurance will get that defense from Oppenheimer and in addition will have all judgments paid; those who pay the \$5 will get Oppenheimer's defense just the same as the others do, and in that way we will be defending our members against imposition that many of them might not be far-sighted enough to have defended themselves against by taking out group insurance. I do hope that you will not turn down this clause without very serious consideration.

THE CHAIRMAN: I would like to ask if they all have it clearly in mind what these A, B and C Classes are? Is there anyone who is hazy on that at all, so that we don't do anything we don't understand? This amendment is that we cut out Class B. Now are there any more remarks?

DR. TAYLOR: It would be very nice if we could hear from Dr. Woodward who is here from Chicago.

DR. W. C. WOODWARD (Chicago): I have listened to the report that has been read and to the discussion that has taken place with a great deal of interest. I want to impress on the House of Delegates one feature of medical defense: that is not always realized, and that is the extent to which the entire profession is interested in medical defense. Medical defense has been viewed by all of those who have spoken as something in the interest of the individual. I don't look on it strictly as defense of the individual. I look on it as defense of the medical profession. Every malpractice suit that is entered, every malpractice suit that is won, discredits the medical profession in the eyes of the participants, the judge, the jury, the court auditors, and the readers of the newspapers in so far as they are acquainted with it. Now if I were employed by the chiropractors or by the osteopaths or by the naturopaths or by a group of that kind, I should make it my business to collect systematically the malpractice suits that are entered against the physicians of the country and exploit them publicly and particularly before the legislatures as a means of showing that chiropractors and the others were needed. I think we must defend the profession, not merely the individual. I think a medical defense committee can do that better than any other agency of any national or state association.

I believe one prime object of a medical defense committee is the ascertaining of the causes of these malpractice suits and the formulation of means that will limit such suits as far as possible. Now it is a matter of general belief among those who have studied the situation that most malpractice suits have their origin in some careless remark by physicians who are called into the case after some previous physician has been dismissed or has dropped out for some reason or another. Nobody can ascertain the actual facts of those cases better than a medical defense committee of a medical society, and if they find that that is the cause of many of our suits nobody can take preventive measures better than can the state medical society. For those reasons it seems to me that a medical defense committee has a very definite function.

When we speak of medical defense now we mustn't consider, it seems to me, the matter of court defense. I am

impressed with the idea that you can't defend a physician who has made a mistake better than by helping him to settle on the best terms that are possible and keeping him out of court, and there is no one who can judge on that in a fair and impartial manner better than the proper officers or committees of a medical society. A claim is made against one of your members and he refers the matter to your medical defense committee. The medical defense committee, after consulting the experts who are members of the society, find that the man against whom the claim has been made is likely to lose out in court, and they can do him no greater kindness than to defend him by saying, "You had better settle and we will help you to adjust the matter as best you can." That's medical defense.

Now when a medical defense committee is operating in that broad way and it becomes known, as it will through underground channels, that the society is fair, the society is just, when that becomes known and a case goes into the court with the backing of the society, again through this same general atmosphere that will pervade any community, the knowledge that it is going into court with the backing of the society gives the impression, the feeling among the court and the judge and the jurors who happen to know of it—you can't impress it enough—that the society has passed on that, the society is fair, and that strengthens the case. Those are very important features that it seems to me should not be overlooked.

The insurance company of course is in this business for the money that is to be gotten out of it. I think your insurance men will be frank enough to tell you that. They are not in the business to work for the profession. If the insurance committee compromises it is a stain against the reputation of the man whom they represent in the compromise and it is an invitation for other suits. Yet you cannot blame a money-making insurance company if when it finds it cheaper to compromise than to defend, it compromises. That's to the interest of the company. On the other hand, if by some arrangement of group insurance or by some arrangement of defending your own members you can retain in the hands of your medical defense committee the right to say when a case shall be compromised and when it shall be fought, you have retained in the hands of that committee the right to protect the reputation of the profession as well as the pockets of the individual. It seems to me clear that there is a very active function and duty for a medical defense committee in connection with any state organization.

The group insurance plan has one advantage in that it does get you a cheaper rate. Of course it is said that by group insurance the society becomes the agent of the insurance company. It is because the society becomes the agent of the insurance company that the insurance company can afford to give you the cheaper rate. The company is put to no expense by reason of the collection of the annual premiums, and there is drawn into the group probably a wider range of men than would come in under ordinary circumstances.

That group insurance is successful, that it hasn't operated to the detriment of the men who have gone into it, is shown by the fact that the companies are still writing it. Of course one company claims that it is objectionable be-

cause when a case goes into court the evidence of a man who is in a group will be discounted by the jury by reason of the fact that he is in the group. Well now, the best answer to that is that the companies that are writing group insurance have themselves had a pretty extensive experience and if they found that it didn't work out they would hardly have continued in it.

I believe that there is a very important function for a medical defense committee to fulfill in connection with the state society in the prevention of suits. They can do that best by advising compromises where compromises are necessary, by pushing to the limit every other case, by studying causes of suits and doing what they can in a moral and in a medical ethical way to prevent them. If there are any questions I can answer I shall be glad to try.

THE CHAIRMAN: Dr. Johnson came in contact with a good deal of this in his work. Have you anything to say on this?

DR. H. M. JOHNSON: I discovered this: that so many of the members of the legislature and especially attorneys and especially those attorneys who didn't like us very well anyway—of which we have a number up there—said they knew all about our state insurance. They said that we were banded together, the worst trust in the state; that we stood by one another right or wrong; that we didn't care for money or anything else; that we shouldn't have legislation, a gang of men like that; that we were just so narrow-minded that we would help anybody out, whether he should be helped out or not. I finally explained to them that while we had the state insurance in a way, very few men depended much upon it; and that I understood there was a committee to which questionable cases were referred, when the attorneys thought probably it wasn't a case that should be defended. And if that committee decided that the case should not be defended, then it was settled. Well, that kind of helped out some, but from my experience with the legislature I don't believe that the society should carry state insurance.

Another point that was made here by one of the doctors, and that I believe hurts us and has probably hurt us in the past, is this: Sometimes we may have tried to help out a man that was actually guilty. We have gone to the extreme. We have gone so far sometimes and it showed so plainly that it is pretty hard to convince people that we are not sticking together pretty tight. I believe that we should be fair and square. If a man is unfortunate and does something that is wrong, help him out, settle it as reasonably as possible, but don't stand for what is wrong.

DR. F. J. SAVAGE (St. Paul): Dr. Johnson didn't say one thing that he told me some time ago. I was asking him why there weren't more members from the country in the state association, and he used a little choice English which I won't repeat but the main idea was that the state association didn't do anything for the members. Now on the assumption that there might be two hundred men in the state association who would be left high and dry if this Class B were stricken out, not that there is any legal obligation on our part to continue this defense—but even if it does cost the state association a little money—we have twelve to fifteen thousand dollars in bonds as I understand

it, and if that will create a good feeling among those men isn't it worth while to spend a little money and adopt Dr. Judd's report intact as it reads? That gives those men protection for the next two years and two months approximately, giving them in that interval the opportunity of providing themselves with other insurance if they wish to. I would be very sorry to see Class B stricken out.

THE CHAIRMAN: Now we are getting into complications. I don't understand that this particular clause takes care of all the members in the past. This creates a new group.

A DELEGATE: I would just like to ask in connection with this Group B of five dollars, who assumes that risk? Does the state association carry that or does the insurance company?

DR. JUDD: The insurance company has nothing to do with that. That is the state.

A DELEGATE: Supposing that only about a hundred men sign up for that five dollar rate and then we have two or three cases to defend, where is the money coming from to defend them?

THE CHAIRMAN: Dr. Plondke's point was that all of us have been paying dues up to this time, and he wants us to take care of everybody for two years or our period of liability. This group B doesn't cover that at all, Dr. Savage. This is a new group that will pay five dollars a year and go on indefinitely. That may be only ten per cent of the members, but it doesn't take care of the present members. Dr. Plondke's point is a good one. We have all paid in two dollars a year for protection, and he doesn't feel that we should cut this right off short.

THE CHAIRMAN: We have the amendment to the original motion still before us: That we do away with this group B.

DR. HARE: I rise to support the amendment. For a good many years I have been watching rather closely and from an official position this medical defense feature of the state association. Years ago the funds paid in by the members were ample to take care of all suits which were entered. As the years have gone by there has been a gradual increase in the amount of money expended by the state in defense of its members. This amount of money has been rapidly increasing in the last three or four years; and already, as the secretary has reported, in seven months we are within a few dollars of the full amount expended last year, something over \$3,700 having been paid; \$2,200 in a single case this year. There isn't any question I think in the mind of any member of this association, or in the mind of anyone who has looked into this matter, but that these costs are going to increase as the years go by rather than decrease, unless possibly the law which has just been enacted will diminish the number of suits. However, the proportional cost is going to increase. Inasmuch as this question of discontinuing the medical defense plan of the state association has been in the air for a number of years, it seems to me that this is the time for us to eliminate it. Each individual certainly should have enough interest in his own welfare to protect himself; and if he hasn't, any man of sufficient intelligence to practice medicine and surgery should not expect his neighbors in the profession to be more interested in his own welfare than he himself, and thereby expect them to protect him. I do feel, however, that our legal obligation continues through the period of

the statute of limitations. I think nobody ought to question that, but I am heartily in favor of this amendment which strikes out section two of the committee's report.

DR. WORKMAN: I am going to take just the opposite side. I believe that we should keep in section B for a great many reasons. Nobody will care what it is going to cost. That has never been paid any attention to before. Referring to this case that Dr. Hare cited that cost so much money, had that been referred to the Council and investigated and settled before it came to trial there wouldn't have been any such costs. I think we had better keep that section B.

DR. O. E. LOCKEN (Crookston): I just want to bring a message from the Red River Valley Medical Society, which is strictly a society made up of what we call rural physicians, in support of Dr. Braasch's opinion. We voted in our last meeting that it was the opinion of that organization of fifty-two members that we go on record as against any form of insurance in which the state medical society is obligated to pay. It comes down to this: It isn't a question of whether we have moral responsibility. If we are going to have two or three hundred men paying this and we are not going to have the money to pay it, it is better to cut it out now. That was the attitude of the Red River Valley Society.

THE CHAIRMAN: Now the attitude of the Park Region Society. I see our delegate isn't here. I would like to call on Dr. Estrem up there.

DR. C. O. ESTREM (Fergus Falls): The attitude of the Park Region Medical Society has always been that the state society should not be in the insurance business. I think to a man our society is against this insurance.

DR. H. W. CHRISTIANSON (Wykoff): May we have section B reread?

THE SECRETARY: (Reads Section B.) It is the same old insurance we have always had, with the exception that it is elective and the cost is five dollars.

A DELEGATE: There is one thing that has not been brought out in this. The Hennepin County Medical Society has been very much astonished in the past five years. There are very few men in our society that realize that this insurance does not take care of verdicts. I believe if we struck out that section B it would bring the thing right to a showdown, so that really they would be better off in the end. Many a man has come up for information and been very much amazed to find that all he had was the defense. I think if it is put in or if it is not put in, it ought to be brought to every man's attention; otherwise he comes to a suit thinking that he is fully protected by the state society and he is not.

THE CHAIRMAN: Now unless there is something very important, possibly we had better have a vote.

VOICES: Question.

Standing vote taken; amendment to strike out Section 2 constituting Class B carried by very large majority.

Motion to adopt report with recommendations therein carried.

DR. WORKMAN: I would like to make this one suggestion: That the Committee on Credentials has not yet reported, and any action on any matter that this house has

taken would have to be corrected after that committee reports.

THE CHAIRMAN: I will call on the Credentials Committee right now so we will be sure this is right. Dr. Hunt.

DR. HUNT: The official list of delegates to the House of Delegates of the State Medical Association numbers sixty. There were forty-five present at the last count. Thirteen societies are not represented.

One question came before the Credentials Committee and that was regarding the delegates from the Red River Valley Medical Association. We have disposed of it; however, we bring it up for consideration before the House of Delegates. The question which has arisen there probably will arise again. The report which was read this afternoon stated that the Red River Valley Medical Society consists of 52 members, which entitled them to two delegates. However, there has been some correspondence between Dr. Oppegaard and the secretary of the State Medical Association regarding the eligibility as active members of two men who formerly resided in that district and about one year and a half ago moved to New Mexico. They have retained their membership in the Red River Valley Medical Society by virtue of having paid their dues. They are not members of local medical societies in New Mexico. It was understood that the 52 reported included these two men. However, Dr. Locken, one of the delegates from that society, states that the secretary told him yesterday that the society has 52 members without counting these two, which entitles them to two delegates.

The correspondence that has taken place, however, between the secretary of that society and the secretary of the State Medical Association brings for consideration certainly the question of what constitutes membership in a county medical society, on which the number of delegates is determined. That is, if a man has moved away from his local medical society to another county or to another state and retains his membership in that county by payment of dues and so on, how long does he remain in that county medical society as an active member, and for how long a time may his membership be considered active to the extent of being counted in determining the number of delegates? This has occurred before; what disposal was made of it I don't know. It probably will occur again. It seemed to the Credentials Committee that the House of Delegates should make some sort of arrangement on this point. The committee have presumed to suggest a ruling, and present for your consideration the following:

"That a physician who has changed his residence from the county in which he has been an active member in good standing in the county medical society ceases to be an active member and is not included in the roll determining the number of delegates from the society to the State Medical Association after one year."

A DELEGATE: Move its adoption.

THE CHAIRMAN: This recommendation is an amendment to the By-Laws. You have heard the recommendation and it will lay over one day and be brought up tomorrow.

DR. BRAASCH: Will you kindly read that recommendation once more?

DR. HUNT: (Rereads.) I might make a suggestion. Inasmuch as this brings in consideration an amendment to

the By-Laws it ought to have pretty careful consideration first, for there may be some things entering into it that the committee did not take into consideration.

THE CHAIRMAN: This recommendation or amendment will pass over. Otherwise any corrections to the Credentials Committee's report?

Motion to accept report carried.

DR. HARE: I now move that the House of Delegates ratify all of its actions which occurred before the acceptance of the report of the Committee on Credentials.

Seconded and carried.

A DELEGATE: I will make a motion that we refer to the Finance Committee the consideration as to whether we should provide further protection for the period of limitation as suggested by Dr. Plondke.

Seconded and carried.

#### Report of Necrologist, Dr. Olga S. Hansen:

Since the last meeting of this organization, many names have been added to the honor roll of those dying out of our profession. Many faces of loved and honored friends will be missing at our annual meeting this year. It casts a sadness upon us to realize that our president of a year ago, Dr. Archibald MacLaren, of St. Paul, was on his deathbed at the time of our last meeting in October and died a few days later. An eulogy upon him or any of the other members who have left our ranks would be redundant. They have been friends to humanity and have left the world a happier and a more beautiful place for their having lived in it.

Members who have passed away since our last meeting are:

MacLaren, Archibald...	St. Paul	.....October 12, 1924
President, 1924		
Monahan, J. A.....	Minneapolis	.....October 12, 1924
Beckley, Frederick L....	St. Paul	.....October 23, 1924
Balcom, George G.....	Lake Wilson	.....November 6, 1924
Graves, Carlton.....	Aitkin	.....November 20, 1924
Williams, John.....	Lake Crystal	.....November 21, 1924
Pratt, Chelsea C.....	Mankato	.....December 20, 1924
Thomas, David Owen...	Minneapolis	.....February 11, 1925
Lee, John W.....	Minneapolis	.....March 11, 1925

The following names have been reported in the medical journals:

Riches, Charles W.....	Minneapolis	.....November 12, 1924
Mann, Eugene L.....	St. Paul	.....March 14, 1925

Respectfully submitted,

OLGA S. HANSEN,  
Necrologist.  
April 28th, 1925.

Dr. Workman presented recommendation of Council that the House of Delegates authorize it to redistrict the state; approved.

DR. WORKMAN: We also recommend—this would help out Dr. Johnson's idea a little—that there should be a society in every county that has at least six physicians. Now it isn't the idea that that would interfere with any of the district societies, but if there were a local society that could meet with the district society it would put us in close touch with the profession in every county. That

is only a recommendation for you men to take home. It would be the best thing for this society. Every society would be entitled to a delegate in this house, and it would bring in many more men that could get in touch with members of the profession throughout the state. I think that it would be a mighty good thing.

The Council asks that it be authorized to have the Constitution and By-Laws corrected up to date and some copies printed. We have only about two or three copies now. I would move that the Council be authorized to have those printed.

Seconded and carried.

At the suggestion of Dr. Workman, the Council was authorized to have printed copies of the early proceedings of the association. Dr. Geo. Earl suggested that a copy be placed with the State Historical Society.

THE SECRETARY: The following amendment to the Constitution, proposed by Dr. H. M. Workman last year, was laid over to the present meeting. It is article 5, the paragraph as to who shall constitute the House of Delegates, and adds the words: "Also the chairmen of the various appointed committees and the delegates to the A. M. A., but without a vote."

Moved and carried that the amendment be adopted.

DR. ADAIR: "That in addition to the per capita dues of \$5.00 that during the years 1925, '26 and '27 each member be assessed the sum of \$5.00 per year for the creation of a fund to be known as the Public Health and Legislative Fund.

"That this fund may be used at the discretion of the Council for maintaining a representative of the medical profession in St. Paul during the session of the legislature and for such publicity and public health educational work as the Council may determine.

"That in 1928 and thereafter this assessment may be reduced by the House of Delegates, but such fund shall amount to a minimum of \$10,000 by January 1st of the odd numbered years."

This is an amendment to chapter IX, Section 15 of the By-Laws, to be inserted after the last word in that section. I submit this, gentlemen, to be referred to the Finance Committee to have something to work on.

DR. PLONDKE: I move that this be adopted.

DR. J. T. CHRISTISON: I would like to second it, and I want to say why. If we are going to—as I presume we are—interest ourselves in medical legislation, it is going to be absolutely necessary that we have funds to do it with. If this one law that we have changed during the past session of the legislature means anything, it certainly is worth at least five dollars a year to every member of this state society. If you stop for a moment to consider the difference between a malpractice suit that must be brought within two years of the alleged malpractice as against one that may be brought six years afterwards, you can realize what the saving may mean, not to this House of Delegates but to every member of the state society. I feel that if we are going to interest ourselves, and the society insists that somebody shall interest themselves in legislation, you have got to give us money to do it with.

THE CHAIRMAN: You have heard this recommendation to be referred to the Council, that our dues be increased five dollars a year chiefly to be used for legislative purposes.

DR. PLONDKE: Mr. President, you said the dues; this is an assessment. Dr. Savage drew this up and it was his suggestion. The reason we made it an assessment was so as to make it more elastic. The delegates can discontinue this in two or three years if you have sufficient funds. That's the reason for making it an assessment rather than an increase of dues.

THE CHAIRMAN: I stand corrected.

DR. SAVAGE: I would like to say that this amendment to the Constitution, which provides a five dollar assessment for a period of three years and then to be reduced at the discretion of the Council, would be an optional measure to be considered along with Dr. Johnson's recommendations which have already been referred to the Finance Committee. It would be entirely unnecessary to adopt both. This has a little different wording, and the idea is to have a fund which may be reduced at a later period but which on the odd numbered years when the legislature meets may contain a sum of ten thousand dollars as a working capital for legislative purposes.

DR. DRAKE: Dr. Johnson's recommendation which the House of Delegates is referring to the Council is that the dues shall be increased sufficiently so we will have funds to carry on this legislative work. Now if the House of Delegates goes further and recommends that we should raise this fund, that means five dollars more, and the Council is very likely to act on the opinion of the House of Delegates. If the dues are raised (which is going to be necessary to meet the deficit) to eight dollars, and then if we tack on another five dollars that is going to mean considerable dues. Five dollars from each member is going to be ten thousand dollars this next year and ten thousand dollars the next year, and make twenty thousand dollars for the next session. Why not pay as we go? If the Council thinks that we ought to spend five to ten thousand dollars on legislative work I am in favor of that, but I can't quite see the point of establishing a large fund to draw on if necessary. If we had a large fund we would probably spend it. I think this would mean that a lot of members would drop out. A lot of members will stay here in the society at eight dollars who won't stay at thirteen. As far as I can see that's about what will happen. I think it is very important to keep up the membership of the association.

DR. BRAASCH: I heartily endorse the sentiments just now expressed because we have so many things to raise money for, not only the deficit but the full time secretary and a number of other things. So I think we certainly ought to curtail this assessment. Now I would prefer this, if I may offer a suggestion, that we levy an assessment for this year to cover not alone the raising of a fund for legislative purposes but also our deficit, and if next year we think the money is wisely spent we can make it an additional assessment or make it a regular dues. According to the Constitution this House of Delegates is empowered only to make an assessment, and that only by a four-fifths vote. Therefore I would amend: That the five dollar assessment

be expended by the Council as they see fit for the various purposes suggested.

DR. ADAIR: I move that this be referred to the Finance Committee of the Council without recommendation.

DR. WRIGHT: I think we ought to make some definite recommendation because it will help the Council, but I am opposed to recommending any definite sum. I would rather see this thing worded, say that we recommend raising the dues by assessment or by assessment raising sufficient funds to do these things that we want to do, and leave it to their discretion as to how much we will raise and how we will raise it. I don't think it is wise to instruct them definitely either as to the means or the amount, nor do I think that we should let it go without giving them some instructions as to our ideas for raising this fund.

DR. W. A. JONES (Minneapolis): Ramsey County is worth about a hundred thousand dollars, has that sum collected and in the savings bank. Why should not the State Medical Society have a large sum at its disposal as well? Why shouldn't we not only reimburse Dr. Johnson for his personal expenses this last year but be ready also to meet our obligations by making the assessment sufficient to cover the whole situation?

DR. DRAKE: If we are going to have our dues increased for 1926 we have got to take action on a recommendation today so that it can be voted on tomorrow, otherwise it will have to lie over until October, 1926, according to our Constitution. It seems to me that this House of Delegates ought to make a recommendation as to the amount of dues for 1926 so that they can be raised, because it is going to be necessary. Instead of just making recommendations to the Council we ought to specify the amount. We can say "at the discretion of the Council," say five dollars more, and have the dues for 1926 ten dollars, if that's the wish of the members here. Then we can have the dues raised in 1926.

DR. ADAIR: The only reason I made the motion as I did is that it seems to me there are a number of financial items to consider in connection with this, and the House of Delegates isn't at present informed as to what would be the wisest expenditure of money or just how much money is going to be necessary to cover the things that we need to do in 1926. I think after the Council has these various questions analyzed they will be in a position to advise us as to how much we need to increase our dues during this period of time. That's the reason I made the motion to refer it without recommendation.

DR. BRAASCH: It strikes me we ought to go slowly. With the present trend of economy in the air we can't raise the dues to ten dollars too. The legislature is not going to meet next year so we won't need so much for that, but I think we have a five thousand dollar deficit to take care of and that's going to need a large assessment to begin with. It strikes me that a five dollar assessment would be a great plenty. In other words, if the state dues are ten dollars that alone is going to be a formidable amount for many a country man to pay. Of this five dollar assessment some money can be put into the legislative business but we have got to use a good part of it for the deficit.

Motion to refer the matter to the Finance Committee of the Council without recommendation carried.

DR. CHRISTISON: I desire to make a motion that Dr. H. M. Johnson be reimbursed for the amount of money that he has actually spent during this session of the legislature. The idea of reimbursing him for his time and the loss of the money that would accrue from his practice is entirely foreign to my idea. I do think, however, that this society ought to reimburse him for the actual cash that he has expended, and I happen to know that that is just about two thousand dollars.

DR. SAVAGE: I would like to second that motion, and by way of adding some remarks I would like to give a little history. Four years ago the Medical Defense Company of Fort Wayne rather backed this bill that has gone through this year. That bill was defeated. Two years ago I was chairman of that committee and they also wanted that bill put through that year. They wanted us to try it but it was decided not to attempt it. I took it upon myself early in January to write the Fort Wayne people, entirely unofficially, to ask them whether or not they would be disposed to pay part of Dr. Johnson's expenses, and they were non-committal in their answer. It is a business proposition with them. Dr. Johnson has told you that they consider withdrawing from the state. They are the only concern that hasn't gone up in their rates. Last week I wrote them again and said, "We aren't asking you for this money but we would like to know whether or not you would like to pay something of Dr. Johnson's expenses." I didn't get their final word until this morning. They make an offer through their chief attorney, Mr. McLucas, if the state association wishes to accept it, of paying to the state association one thousand dollars of this two thousand dollars which Dr. Johnson has spent.

Motion to reimburse Dr. Johnson carried.

A DELEGATE: I move that we accept the Fort Wayne proposition with thanks.

A DELEGATE: May I just rise to a point of information? I understand that St. Louis County has a blanket policy I believe with the Aetna Company. Are we in accepting this thousand dollars from the Medical Protective Company of Fort Wayne entering into a moral obligation to give them a blanket policy of the state society?

THE CHAIRMAN: They won't take it.

Motion to accept Medical Protective Company's offer with thanks seconded and carried.

DR. DRAKE:

Mr. President and Members of the House of Delegates  
Minnesota State Medical Association:

The World War Veterans Act, 1924 (Public, No. 242, 68th Congress), passed by the Federal legislature at Washington, provided for a revision of laws applying to the Veterans Bureau, War Risk Insurance Act and the Vocational Rehabilitation Act and provided for an independent bureau to be known as the United States Veterans Bureau, the director to be appointed by the president of the United States with the consent of the Senate and to be directly responsible to him.

The act provides in the main for medical care, compensation and rehabilitation of individuals who served their country in the World War.

In addition to such provisions, however, appears in this Act, under Title 2, Section 202, Subdivision (10), the following:

"(10) That all hospital facilities under the control and jurisdiction of the bureau shall be available for every honorably discharged veteran of the Spanish-American War, the Philippine Insurrection, the Boxer Rebellion or the World War suffering from neuropsychiatric or tubercular ailments and diseases, paralysis agitans, encephalitis lethargica or amebic dysentery, or the loss of sight of both eyes, regardless whether such ailments or diseases are due to military service or otherwise, including traveling expenses as granted to those receiving compensation and hospitalization under this act. The director is further authorized, so far as he shall find that existing government facilities permit, to furnish hospitalization and necessary traveling expenses to veterans of any war, military occupation, or military expedition since 1897, not dishonorably discharged, without regard to the nature of the origin of their disabilities; Provided, That preference to admission to any government hospital for hospitalization under the provisions of this subdivision shall be given to those veterans who are financially unable to pay for hospitalization and their necessary traveling expenses."

Also Title 2, Section 203, reads in part as follows:

"Section 203. That every person applying for or in receipt of compensation for disability under the provisions of this title and every person applying for treatment under the provisions of subdivisions (9) or (10) of Section 202 hereof, shall, as frequently and at such times and places as may be reasonably required, submit himself to examination by a medical officer of the United States or by a duly qualified physician designated or approved by the director. . . . For all examinations he shall, in the discretion of the director, be paid his reasonable traveling and other expenses and also loss of wages incurred in order to submit to such examination . . . ."

The two sections above quoted clearly provide for hospitalization, traveling and other necessary expenses and also for compensation for loss of wages incurred by hospitalization of veterans (army and navy) of any war or military occupation since 1897. This medical service is free to veterans irrespective of whether the disease or disability is associated or due to service and irrespective of financial status of the individual. The only restriction placed on such service is that those unable to pay for private medical attendance are to be accommodated first by the bureau facilities. This amounts to provision for free medical service to several millions of individuals who have been in the army and navy since 1897.

The medical profession heartily endorses the provisions made by the government to treat and rehabilitate veterans suffering disability due to government service. The profession is opposed to the policy and practice provided in this act of furnishing free medical service to veterans for ailments in no way associated with governmental service. The provision socializes medical services to several million citizens of our country.

The following resolution is therefore submitted:

"Resolved:

"That the Minnesota State Medical Association hereby express through its House of Delegates its disapproval of the principle and provision made under Title 2, Section 202, subdivision 10 of the World War Veterans Act, 1924,

for free hospitalization of veterans for disabilities not the result of service;

"That the Legislative Committee of the Minnesota State Medical Association be authorized to take such steps as may seem feasible to correct this provision now in effect;

"That the Minnesota delegates be instructed to bring this matter to the attention of the House of Delegates of the American Medical Association at their meeting in May, 1925, with a view to having them define the position of the American Medical Association on this matter."

C. B. DRAKE.

A MEMBER: This is a bill which affects all the boys who wore the uniform in the war up to the time it was passed. I happen to be one of those who helped pass that bill, not directly—I was not in Washington like my good friend Johnson was on the ground—but I did help in an indirect way. I spent a good deal of time and even spent a few pennies (didn't have much to put in), and we thought at the time it was a just bill and we still think so. The bill was passed after a great deal of work out there. We think that it is covering ground that could not be covered otherwise. It may be defective in some ways but it takes care of a whole lot of boys who cannot trace their disability to the service but at the same time their disability is due to the service, where you can't get any proof of such condition. Now to state that this bill is making it a socialist affair, I don't know what my good friend Drake means by that. I don't believe in state medicine, but when those boys went over and put the uniform on you came very near doing a socialist affair. You didn't ask them where they come from, what they have in their mind, what color their skin is, what they believe. You were very glad to have them shoulder a rifle and go and fight for you. Now why, when the law comes in and takes care of a large percentage of them who may not be taken care of otherwise, why should we try to repeal that law? It seems to me that the medical profession should be the first ones to back this law and keep it on the statute books of this country. I do hope that this recommendation will not be adopted.

THE CHAIRMAN: Does this law provide that these men be taken care of as long as they live?

MEMBER: As long as they need it. If a man has been in the service and he has got to the point where he can't prove that his disability is due to service the law didn't take care of him, but this law now does take care of him. It is very true that there may be some abuse, it opens the door for some kinds of abuse, but I would like to have you point me a law in this country which hasn't got a good many trapholes for abuse.

THE CHAIRMAN: It actually provides then to take care of these men as long as they live, whatever happens.

MEMBER: Why certainly. The law provides that if they need it they can be in a government hospital and cared for. I say to you that they are entitled to it.

Motion to adopt Dr. Drake's recommendation seconded and carried.

THE CHAIRMAN: I would like to thank the House of Delegates for your courteous action and expeditious work.

Moved and carried that the House of Delegates meet in the Men's Union Tuesday at 12:30.

Adjournment, 5:20 p. m.

## SECOND MEETING OF HOUSE OF DELEGATES APRIL 28th, 1925

The House of Delegates held its second meeting Tuesday noon at 12:30 in the Minnesota Union. President Burnap presided.

THE CHAIRMAN: Dr. Aldrich is the only member of the medical profession in the legislature so we invited him over here to give us a few words on this legislative matter.

DR. F. H. ALDRICH (Belview): Mr. President and Gentlemen of the House of Delegates: As the chairman said, I am the only physician in the House of Representatives and the Senate, and you can see at a glance, as they say in the old way, by looking at the program about how badly you were represented over there in the state legislature this year. I had the good fortune to have a couple of fellow members over there who were doctors, but not M.D.'s; they were dentists. One of them was Dr. Colp, formerly mayor of Duluth. He was chairman of the Public Health and Hospital Committee. The other was Dr. Wilson from Belle Plaine. I must say that they gave real good co-operation in everything. We helped out on the dental bills and they also helped me out on any bills that I thought were needed.

Now I must say, gentlemen, it is really a sort of sad commentary on the medical association of this state, that I am the only medical representative. There should be at least half a dozen doctors over there in that legislature, absolutely. It is a hard job for one man to do much of anything. Of course you all say immediately that you are too busy, you can't afford to do that, it is a losing proposition, you can't afford to take the time. But it's the same way with me. You don't hardly get by with the salary you get down there. You come back without anything if you're any kind of a spender at all. I know there are a great many men in the Minnesota Medical Association who are wealthy, and I think it would be a fine thing, instead of taking their annual vacation and going down to Florida say for three months and eating grapefruit and swimming around a little, or instead of thinking about going to California for the winter, if they would just take about three or four months to run for the legislature—not only run but land.

It's some little job to do it, especially for a medical man. The first thing you are met with, especially out in the country, and I am a country doctor—of course I don't know as I ought to apologize so much for that because the Mayo boys say they are country doctors, so maybe it is a compliment instead of otherwise—but as soon as you file for an office of that kind, representative or senator, they say, "Well, that's a doctor." They regard him with suspicion immediately. They say, "What does he want to do? He wants to go down there to reward doctors for an operation of appendicitis, and all that sort of thing." If not, they said, "Well, we're farmers out here; what does a doctor know about farming?" I used to tell them in the first place it wasn't so, and I didn't think so much of the last part because I don't believe there is anybody outside of a farmer that knows any more about the conditions in the farm home than the doctor himself; so I don't believe that argument holds good.

I really don't see any reason, as I say, why at least half a dozen medical men in the state of Minnesota shouldn't be members of the House or Senate over there at St. Paul. Organization is what counts. One man is quite helpless in a place of that kind. The dentists are well organized over there; they are well represented. They look after everything; they don't let a thing slide by that is in their interest at all. As far as the legislature is concerned the lawyers are well organized, much better organized than the medical men are. There are a good many lawyers in the House and Senate and they get on the Judiciary Committee; and if you have any bill that they don't fall in line with, you are going to have some job to get that bill passed in the Judiciary Committee.

Take the bankers now, they have it on us four ways for Sunday for organization. Whenever the bankers want anything they have their country organizations get together and talk it over and have a nice little feed and a good smoke, and they come down to the capital there with a bunch of fellows. They spend their money pretty freely. This winter they wanted to get their personal property assessment on banks reduced from 40 per cent to 33½ per cent. Well, of course that seems kind of peculiar to start with. Immediately a bank wants anything, it is a good deal the same as when a medical man wants something, everybody thinks he shouldn't have it. But they came down there and through an almost perfect lobby they had that banking bill passed and did reduce their personal property taxes. They went home then feeling pretty satisfied, and of course they should have been.

A little while later one of the members over there introduced a bank guaranty bill. You know they say if there is anything that gets a banker's goat it is to think about a bank guaranty bill. (Some of you men may be bankers as well as doctors.) They had several meetings, got together, got their crowd down there again, and started in with their nice little lobby. They spent considerable money. It takes lots of money to do things. They had several banquets, invited the boys out, gave them a good smoke and a good feed, and when they went home that night they decided the bank guaranty bill was no good. The upshot of it was that the bank guaranty bill died in the committee.

The chiropractors were over there wanting some of their bills passed. They are well organized; they spend money freely. They come over there nights that they have a public hearing. They do allow a public hearing on almost anything when there is any demand for it. They pack the House gallery and the floor with their friends, and when one of their people gets up to speak—some of them are pretty good spielers—and makes a point, or they think he did, those friends of the chiropractors raise the housetop with their applause. But for instance in the antivivisection bill a man gets up to talk he has only half a dozen friends in the house. Whenever one of those bills comes up it would be a good thing if every friend of the medical profession would crowd the gallery and applaud just as hard as those fakes do for their friends. Dr. Johnson made a good talk on the antivivisection, and part of the time they were against it, and those who were against the vaccination would even hoot, give a catcall once in a while.

When he got finished, four or five fellows applauded. But when the chiropractors got done, why as I say, they almost raised the roof off the house with their applause. They are organized and they spend money.

Now in the Legislative Committee, gentlemen, you have been very fortunate this year. There was a middle-aged doctor came from out of the west, Dawson, where some big men come from. You know Theodore Christianson comes from Dawson. I suppose we will have to hand him the palm for being the biggest man. Dr. Johnson may not be as big a man as Christianson, but he is a pretty good sized man. Dr. Johnson deserves much credit. He is one of the best men I believe that could possibly have been chosen to fill that position. When he came down there to the legislature a few of the boys that I happen to know said, "Who the dickens is this Dr. Johnson?" They seemed to resent his presence there. They said he was lobbying for bills. Well, it wasn't very long before they began to find out who this Dr. Johnson was.

I think it is a good plan to have somebody down there. He must be a medical man of course, and must be on the job all the time. I don't know whether Dr. Johnson would go back or whether you would want him to go back, but I don't believe you could get a better man. I thank you, gentlemen, for the opportunity of saying a few words.

Dr. Adams reported for the Credentials Committee: 49 delegates registered, representing 26 societies.

Minutes of previous meeting of the House of Delegates were accepted as read by the secretary.

Dr. Workman read the minutes of the second meeting of the Council.

DR. WORKMAN: The Council recommends as follows: "That the dues remain the same for the next two years as they have been in the past, and for this two dollars the Association will take care of all retroactive cases of members in good standing. We feel that we are morally obligated for the protection of members in all cases coming under the Medical Defense Act from a period from June 27, 1923, to June 27, 1925, from which time the new statute of limitations is effective."

Moved and carried that the recommendation be adopted.

DR. WORKMAN: "The Council recommends in the case of the recommendations in Dr. Johnson's report and the amendment submitted by Dr. Plondke that a special assessment of five dollars be levied against each member for the establishment of a fund for educational purposes to be expended by the Council."

DR. PLONDKE: You said "for educational purposes." There is a question as to whether that would cover the ground.

DR. WORKMAN: I think it will cover all ground because legislation is educational work, radio is an educational proposition, and everything of that kind. It doesn't leave the impression outside that we have a graft fund.

DR. PLONDKE: I move that be adopted.

Seconded.

THE SECRETARY: Shouldn't we amend that by adding that this assessment shall be in force for a number of years in case some may drop out and then come in again?

THE CHAIRMAN: You have heard this provision that all future members pay this assessment.

A DELEGATE: Dr. Aldrich just told me that the chiropractors are assessed about twenty dollars apiece, and if they are good for that we certainly ought to be good for five. Motion carried.

DR. WORKMAN: The Council recommends that Article XI of the constitution, Funds and Expenses, be amended to read: "Funds shall be raised by an equal per capita assessment on each component society. The amount of the assessment shall be fixed by the House of Delegates, but shall not exceed the sum of eight or ten dollars per capita per annum, except on a four-fifths vote of the delegates present. Etc."

Moved and carried that the recommendation be accepted.

DR. WORKMAN: "The Council recommends to the Committee on Hospitals and Medical Education that the \$100 necessary for graduate education be raised by assessments on members who benefit thereby."

Moved and carried.

DR. WORKMAN: The Council recommends "that the motion relating to the amendment submitted by the Credentials Committee be laid on the table as the situation at present does not demand a remedy."

Carried.

DR. WORKMAN: The Council recommends that chapter 11, Medical Defense, be amended to read: "Section 1. The Council shall be authorized to make a contract with an insurance company for group insurance for the Minnesota State Medical Association for malpractice suits. Each member shall pay for the policy he selects. Section 2. Members not subscribing to the group insurance plan must defend themselves entirely at their own expense."

DR. PLONDKE: In connection with this—I think it has been omitted—the members ought to be notified at once that the insurance of the state society has been discontinued, had they not?

THE CHAIRMAN: You have heard this suggestion; that would be a suggestion.

Recommendation accepted.

DR. PLONDKE: I move that the secretary be instructed to write every member of the State Medical Association that the state insurance will terminate June 27th, and also explain to each member that he is taken care of for two years as far as the insurance goes for any cases that might arise from the last two years as stated in Dr. Workman's Council report.

Carried.

THE CHAIRMAN: Any amendments or anything that should be offered now?

DR. PLONDKE: I would like to make a recommendation but I probably am saying too much. I think that this House of Delegates ought to take some action to back up or rather give the component societies something to work on in the matter we suggested yesterday in the House of Delegates and also stressed last night, about entering into politics. I took this matter up before the Ramsey County Medical Society at the last meeting and asked them if the question should arise at the state meeting what they thought we should say. They voted that the state society and all component societies should enter actively into politics on matters pertaining to medicine, directly or indirectly. The question will arise with the members of the smaller so-

cieties, county societies, that we are not a political institution, we have no right to do it; and I think that we ought to take some action here instructing them—not necessarily instructing them but giving them permission to do what they can to elect a candidate that would be in our favor, or anything along that line.

THE CHAIRMAN: Is that a motion?

DR. PLONDKE: No, I simply suggested it. I didn't want to go as far as a motion, but I think we ought to make a motion to that effect.

DR. W. A. JONES: I should like to make it a motion, that the entire organization get into politics and get into it fast. We need it. We have been foolish about it and delayed here for a year. I am not over-enthusiastic about getting into politics but I firmly believe in getting into all kinds of publicity that is of benefit to the medical profession and the public.

THE CHAIRMAN: Of course Dr. Naegeli was with us from the dental committee and asked that we unite with them, that our committee be empowered to work with theirs. You have heard this motion that the House of Delegates is in favor of every doctor interesting himself in a political way, and that we empower our Legislative Committee to form alliances or an understanding with our dental friends. I would like to say here that the publicity proposition was very close to my heart, and one disappointment I had is that we didn't succeed in arranging an address before the Kiwanis and Rotarian and all those clubs. I will say what I said before: Dr. Rowntree spoke before the Kiwanis Club in Duluth and did more good than anything that the whole organization has done for a number of years. And he is doing it today noon. At our subsequent meetings I think if possible we should try to have our men speak to these luncheon clubs.

DR. BRAASCH: I have been very much interested as to the reaction among the members of the association in regard to the publicity carried on through the radio. Dr. Savage has done an immense lot of good work along that line, and I don't think his energies should go for naught. It deserves the active support of every member of the association. I don't know of any means whereby publicity, as Dr. Burnap speaks of, can be accomplished so cheaply as by the radio. It offers tremendous possibilities. I wondered how many members of the association heard the talks given this winter and how many thought it was worth while. Any suggestions along that line I am sure would be welcome.

DR. CROSS: Was there any announcement made of these radio talks? I heard none of them; I knew nothing about it. All I get is the Christian Science sermons Sunday night when I put it on, and I was a little disgusted.

DR. SAVAGE: That was all published in the newspapers, Dr. Cross, under the radio announcements, several days in advance; very inconspicuous, it is true.

DR. CROSS: It seems to me that it is buried in that mass of stuff. It is in small pica and nobody ever wades through it. I wish Dr. Savage would talk on this; there are several things I would like to know about this radio. What does it cost? Are we opening the doors to the cults and those things? Have we got to play even with our friends on the other side of the fence? What is it going to lead to?

You know the National Association of Advertisers—excuse me for mentioning it; I don't mean to put ourselves in that class, but to bring out this point that one thing leads to another in this radio business—the National Association of Advertisers found that they couldn't permit anything of certain classes because of the fact that it interfered with somebody else and there was trouble. Of course ours wouldn't interfere with anybody at all. It would be just simply education along the lines of what medical science has brought out. I would like to hear again from Dr. Savage if there is time.

THE CHAIRMAN: That will be all right, but is this really discussion or shall we have this motion first? The motion is that we take an interest in politics.

Motion carried.

DR. SAVAGE: Dr. Pearce was a prime mover in getting these radio talks started. He took it up with the management of the radio concern and we met the assistant manager one day at lunch. Our understanding was that these talks were for a certain definite time. There was no expense whatever attached to them. They were to be announced as being under the auspices of the Minnesota State Medical Association and whatever county medical society the member writing the paper held membership in. That program was carried out. We got a little mixed up with Rochester at times in the newspaper announcements, for which we sent our profound apologies to Rochester; but the last one both the newspaper and the radio announcer got it straight.

This was an arrangement for the time being only. I imagine that any further arrangements would have to be arranged for definitely year by year. Major Harrison agreed with Dr. Pearce that no cult would be allowed to talk. I might say that his viewpoint all the way through was exceedingly friendly to the medical society. There was more or less assumption on our part in having these talks announced as under the auspices of the state association but we took the matter up with Dr. Burnap, and those interested in it seemed to offer no objection. It seemed a wise way to announce it, giving the papers rather more standing than if we simply announced the county society. I think any future arrangements would have to be made probably from year to year, but if the same management is still governing among the radio people I can assure you that their attitude is most friendly.

I asked Dr. Braasch to bring this matter up, as to whether or not the state association thinks that these radio talks are worth while. I can assure you that if I didn't believe they were worth while as one of the many factors in creating an intelligent viewpoint in the public, I would be very unwilling to do any work or ask any members to write papers. I think we must not expect very many radical changes in one year but if we can get a little something going year by year, then I believe the effort is worth while.

DR. PLONDKE: No name is announced?

DR. SAVAGE: No name has been announced except where the men writing the papers were either full time teachers or engaged in public health work. The principles governing the radio broadcasting were established last year at a meeting of the House of Delegates, and they have been strictly adhered to.

DR. JONES: I presume the members know that from Davenport somewhere they are broadcasting all the time. They have set evenings for broadcasting chiropractors. There is no way of course to stop that sort of thing. If a man wants to tune in on a broadcasting station from Davenport he can do so, but it does interfere with the medical work. How we are going to overcome that I can't understand.

DR. SAVAGE: Let me add that the newspaper publicity given these talks amounted to about 260,000 newspaper editions. The papers from Rochester and St. Paul were published either in whole or in part by either the St. Paul Pioneer Press or Dispatch and also in the country editions of the Dispatch. As the talks progressed they began to shorten those papers and gave more of a synopsis of them.

I might mention some of the difficulties. The radio people told us these talks were too technical; they also told us they were too long. The newspapers said they were too long. The men who wrote the papers said they were the hardest papers they had ever written because they had to use plain language, the kind of papers that they were not accustomed to writing. But the general co-operation that we had was excellent. No one who was asked to write a paper declined to do it.

THE CHAIRMAN: I think really the question is whether the House of Delegates approve of what has been done and wish to continue it. I would add that the Hennepin County Society had a series of papers. It has not been given yet, has it?

DR. SAVAGE: They are in process of being given now.

DR. WORKMAN: I would like to ask Dr. Savage if it wouldn't be possible to get those papers published in the Minneapolis papers also?

DR. SAVAGE: I think that if this program were undertaken another year by having a little more time to work it up it would be possible to get more newspaper publicity, and I really feel that that is a more important factor than simply the radio talks. That is a thing that the committee should very carefully investigate, to get the widest publicity possible.

DR. WRIGHT: I am very much interested in this because we brought this thing up with Major Harrison for quite a while in Minneapolis, through the executive committee and other places, before we decided to go into it. There isn't any question but what we can get the air, if we can just get enough hot air to put over the air. The difficulty will be, in my opinion, in getting men to consistently and conscientiously keep this thing up after it is once started. I have been called on to write one of those papers myself, and it is the most difficult thing I have ever done in my life. You can ordinarily write a paper in the usual way without much difficulty, but when you try to put in five hundred words something which will interest one who is not interested in the beginning, you've got a proposition on your hands which is difficult.

At one of our meetings we had Adams of the Journal over to discuss the method of writing papers for the press, and he certainly opened our eyes as to how to do it. I think that it might be of value if the societies, like St. Paul and Minneapolis, would have some man who is capable, for instance a man who represents the press, to give them a

little idea in a few talks on how to write these papers. As I say, it is going to depend entirely on how successfully we put those papers over as to how long and how frequently they help us in getting the air. I think that's the real point so far as we are concerned.

DR. BRAASCH: Dr. Savage, would you prefer to have this work carried on in the future as it is, by a committee on public legislation and publicity, or would you prefer a separate committee on radio activity created?

DR. SAVAGE: That raises quite an interesting question, and Dr. Wright has said quite a little in the few words that he said. I think there is a good deal to it. One most extraordinary paper came to us submitted to Major Harrison which was nothing but baby talk, the theory being that you must have these things so simple that a six year old child can understand them, that they must not be too technical. For instance this paper was on care of the teeth and they started out, "This little pig went to market," in a rigamarole like that. The whole point the man made in his paper was that one should wear calf shoes. That's all he had to say in his paper, and he took about five pages to say it. It was the most absolute nonsense. I think the writing of these papers should be specialized work, and there is very much in Dr. Wright's comment. We discovered some time ago that these talks should have as far as they can a human interest to hold the attention of the people as they listen to them and be more than merely scientific discussions. I think that should be done by a special broadcasting committee.

THE SECRETARY: I think every radio fan knows of Dr. Peppard's Toothbrush Club. That covers the subject I suppose that Dr. Savage and Dr. Wright spoke about. The dental societies of Hennepin County and Ramsey County spent about six or seven hundred dollars last year with WCCO. Now this year they intend to spend about seven or eight hundred dollars.

Mr. Chairman, I move you that a committee be appointed to conduct the radio program work and that the committee be instructed to continue developing it.

I would like to say another word in regard to that. Dr. Wright is all right as far as he went but it takes a long time to educate people to write newspaper stories. You have got to hire somebody. I think that if this committee will get together perhaps they can suggest a scheme whereby it wouldn't cost the association the complete salary of a person of that character. If we could find the right one—they are very difficult to find—perhaps we could tie up between the dental and our association.

Motion seconded and carried.

DR. HARE: While you are talking about radio, I was approached yesterday with the statement that the Minneapolis Journal is very much interested to know whether or not the state association is interested in the placing of radios in the hospitals. I believe they have some program in mind relative to continuance of the radio activity at Glen Lake and in some other hospitals, and they would like very much to know whether or not this association is in favor of installation. In order to bring it before the House of Delegates and get an expression of opinion on the matter, I move that it be the sense of the House of Dele-

gates that the installation of radio in the various public hospitals is a good thing.

Seconded and carried.

DR. ADAIR: I have just a little communication here which should have been presented at the meeting last October. I was unable to be there in person but I sent this to the secretary and I don't know whether it was taken up or not. It is in connection with maternal welfare. As perhaps some of you know we have a national committee on maternal welfare representing the American Association of Obstetricians and Gynecologists and Abdominal Surgeons and the American Child Health Association. This committee has been trying to secure the interest and co-operation of the different state and county and district societies in developing programs to improve conditions surrounding maternity from the standpoint of the physician. We have made no point at all of making contacts with lay people but are simply trying to develop interest among medical men in better obstetrical practice.

Now if this organization sees fit to co-operate so far as the state of Minnesota is concerned among its component societies, I think the committee would appreciate it very much. We could appoint either a committee or some individual or co-operate perhaps with the committee on education, any way you see fit. What we are trying to do is to develop in each state leaders to see that this important phase of medical practice is not neglected but is raised to a higher plane than it has occupied in the past. I might say of course that Minnesota is a lot better than many other states, but I don't see any reason why Minnesota should lag on that account.

THE CHAIRMAN: What do you suggest exactly that we do?

DR. ADAIR: Well, if the state society would see fit to either designate some individual or some committee to try and develop particularly on the programs of county societies and of the state society more interest in obstetrics—I don't mean the theoretical side of it or the scientific side but everyday obstetrics—to try and teach their members the best obstetric practice, not to have highbrow papers on these problems, but common everyday practical clinics or papers in the society to improve the care of mothers and the newborn.

It was moved and carried that such a committee of one be appointed.

DR. BRAASCH: At the last session of the Minnesota legislature a law was enacted authorizing the State Board of Control to sterilize feeble-minded and insane persons who by a due process of law are committed to its care, provided, however, that consultation be held first with the superintendent of the custodial institution where the insane or feeble-minded person is kept, and also with a competent physician and psychologist, and that written consent be secured from the nearest of kin or from the legal guardian of the feeble-minded or insane person.

Sixteen states have already legalized sterilization of their socially unfit people who would transmit their mental defects to their offspring. The state of California has sterilized approximately 4,000 such persons.

If the Minnesota State Medical Association at this meeting would congratulate the State Board of Control on the

authority given to it by this new law it would encourage that board to carry it out in proper cases. The following is therefore suggested as suitable to be sent by your body to the State Board of Control:

"The Minnesota State Medical Association in session at the State University congratulates the State Board of Control on the fact that recent legislation has enlarged the scope of your activities, and we hope that the state of Minnesota will soon attain a leading place in the matter of social good accomplished by your application of the new eugenics law."

Moved and carried that the message be sent.

THE CHAIRMAN: Place of meeting next year.

DR. DRAKE: In behalf of the Ramsey County Medical Society I want to extend an invitation to the association to meet in 1926 at St. Paul.

DR. SOGGE: I move you that we accept the invitation with thanks.

Seconded and carried.

The following officers were duly nominated and elected: President, Dr. Herman M. Johnson, Dawson.

First Vice President, Dr. W. F. Braasch, Rochester.

Second Vice President, Dr. Arthur W. Collins, Duluth.

Third Vice President, Dr. E. G. McKeown, Pipestone.

Secretary, Dr. E. A. Meyerding, St. Paul (re-elected).

Treasurer, Dr. Earle R. Hare, Minneapolis (re-elected).

Councilors:

Second District, Dr. J. G. Millsbaugh, Little Falls (re-elected).

Third District, Dr. Frank A. Savage, St. Paul.

Fifth District, Dr. H. M. Workman, Tracy (re-elected).

Delegate to A. M. A., Dr. J. C. Litzenberg, Minneapolis (re-elected).

Alternate, Dr. W. L. Burnap, Little Falls.

DR. DRAKE: I move that the incoming president be authorized to appoint the necessary committees.

Seconded and carried.

Adjournment, 2:15 p. m.

## MONDAY EVENING, APRIL 27, 1925

### MEDICAL ECONOMICS MEETING

The meeting on Medical Economics was held in the Auditorium of the Chemistry Building, University of Minnesota, on Monday evening, April 27, 1925, and was called to order at 8:00 o'clock by the President, Dr. Willard L. Burnap, Fergus Falls, who then turned the meeting over to the Secretary, Dr. E. A. Meyerding, Saint Paul.

Major Irving M. Madison, U. S. Army, delivered an address on the subject of "National Defense."

Dr. J. A. Myers, Minneapolis, spoke on the subject of "The American Association for Medical Progress," explaining its aims and accomplishments.

Dr. W. C. Woodward, of the Judiciary Committee, American Medical Association, Chicago, delivered an address entitled "Obligations of the Physician."

Mr. George W. Peterson, of Oppenheimer, Peterson, Dickson & Hodgson, Attorneys for the Association, spoke on the subject of "Do's and Don'ts for the Medical Man."

Mr. Fred E. McLucas, Chief Counsel, Medical Protective Company, presented a paper entitled "Corrective Judicial and Legislative Measures."

Dr. Frank Billings, Chicago, presented a paper entitled "Periodic Medical Examinations."

Dr. Herman M. Johnson, Dawson, Chairman, Committee on Public Policy and Legislation, Minnesota State Medical Association, addressed the audience on "State Legislation."

Dr. J. T. Christison, Saint Paul, spoke briefly on the same topic.

Dr. N. O. Pearce, Minneapolis, delivered an address on "The Medical School and Its Relation to the Practitioner."

Dr. Frank J. Savage, Saint Paul, presented a paper on "Medical Radio Talks."

Dr. William J. Mayo, Rochester, moved a rising vote of thanks to the gentlemen on the program for their splendid entertainment.

Motion seconded and unanimously carried, and the meeting was declared adjourned at 11 o'clock.

## TUESDAY MORNING, APRIL 28, 1925

### JOINT SESSION, MEDICAL AND SURGICAL

The first joint session was called to order in the Auditorium of the Engineering Building, University of Minnesota, at 8:10 a. m., by the Chairman, Dr. Harry P. Ritchie, Saint Paul.

#### 1. Clinic on Tumors of the Lymph Glands:

(a) Clinical Presentation—Dr. J. P. Schneider, Minneapolis, spoke on the medical side of these growths and presented a group of patients.

(b) Surgical Demonstration—Dr. Harry B. Zimmerman, Saint Paul, spoke on the surgical side and demonstrated a group of patients.

(c) Roentgenological and Radium Treatment—Dr. A. S. Fleming, Minneapolis, reviewed this subject and presented a series of lantern slides.

(d) Pathological Demonstration—Dr. E. T. Bell, Minneapolis, described the pathological findings and presented a series of lantern slides.

At the close of this clinic Dr. Ritchie declared a recess of ten minutes and invited anyone interested to come forward and examine the patients.

#### 2. Clinic on Bone Tumors:

(a) Clinical Presentation—Dr. H. W. Meyerding, Rochester, discussed the clinical symptoms and findings and presented two patients.

(b) Pathological Demonstration—Dr. A. C. Broders, Rochester, in the absence of Dr. W. C. McCarty, spoke of the pathological findings and presented a series of lantern slides.

#### 3. Tumors of the Breast:

(a) Clinical Demonstration—Dr. William D. Haggard, Nashville, Tennessee, discussed the clinical signs and symptoms and presented several patients.

(b) Pathological Demonstration—Dr. W. A. O'Brien, University of Minnesota, reviewed the pathological tumors of the breast and discussed the pathologic findings, showing a series of lantern slides.

As this concluded the program for this session, on motion duly seconded and carried the Association adjourned to meet in separate sections at 2:00 p. m.

## TUESDAY AFTERNOON, APRIL 28, 1925

### MEDICAL SECTION

Chairman, Dr. L. G. Rowntree, Rochester; Secretary, Dr. F. J. Hirschboeck, Duluth.

The first meeting of the Medical Section was held Tuesday afternoon, April 28th, at 2 p. m., in Room 104 Anatomy Building, University of Minnesota.

Dr. M. J. Kern, St. Cloud, presented a paper on "The Medical and Roentgenological Management of Hyperthyroidism," which was discussed by Dr. E. T. F. Richards, St. Paul; Dr. H. L. Ulrich, Minneapolis, and by Dr. Kern in closing.

Dr. A. W. Adson, Rochester, discussed "Surgery in Spinal Cord Tumors."

The Chairman introduced the past President of the American Medical Association, Dr. Frank Billings, of Chicago, who said a few words of greeting.

Dr. C. S. McVicar, Rochester, discussed the "Management of Toxemia Associated with Gastric Stasis, Obstructive and Non-Obstructive," which was discussed by Dr. D. C. Balfour, Rochester, and Dr. E. L. Tuohy, Duluth, Dr. McVicar closing.

Dr. H. S. Diehl, University of Minnesota, presented "Observations on the Chlorine Treatment of Acute Respiratory Infections." In the absence of Col. E. B. Vedder, of Washington, the secretary read a letter from him on this subject. After discussion by Dr. J. A. Myers, Minneapolis, and Dr. E. D. Anderson, Minneapolis, Dr. Diehl closed.

Dr. W. A. Jones, Minneapolis, gave a "Discussion of the Care and Treatment of the Psychoneurotic." The subject was further discussed by Dr. Frederick Moersch, Rochester; Dr. E. L. Tuohy, Duluth; Dr. Frank Billings, Chicago; and Dr. Arthur Sweeney, St. Paul.

Dr. S. E. Sweitzer, Minneapolis, gave a lantern slide demonstration of "Phases of the Smallpox Epidemic," which was commented on by Dr. O. N. McDaniel, Minneapolis; Dr. H. E. Michelson, Minneapolis; Dr. Ralph T. Edwards, Elysian; and by Dr. Sweitzer in closing.

Dr. Everett K. Geer, St. Paul, presented the moving picture film on "Pathology and Diagnosis of Pulmonary Tuberculosis," prepared by Dr. Lewis Gregory Cole, of New York City.

Adjournment.

## TUESDAY AFTERNOON, APRIL 28, 1925

### SURGICAL SECTION

The first session of the Section on Surgery was held in the Auditorium of the Anatomy Building, University of Minnesota, and was called to order at 2:05 p. m., by the Chairman, Dr. Harry P. Ritchie, St. Paul.

Dr. F. E. B. Foley, St. Paul, presented a paper entitled "Embryology of the Upper Urinary Tract Anomalies, Report of Cases."

Dr. John M. Culligan, Rochester, presented a paper entitled "Ureteral Stone."

Dr. Gilbert Thomas, Minneapolis, presented a paper entitled "Diagnosis of Renal Tuberculosis," with lantern slides.

Dr. William F. Braasch, Rochester, presented a paper on "New Antiseptics, Their Value."

These four papers were discussed by Drs. Franklin Wright, Minneapolis; A. G. Wethall, Minneapolis; and in closing by Dr. Thomas.

Dr. A. C. Broders, Rochester, presented a paper on "The Grading of Cancer."

Dr. A. C. Strachauer, Minneapolis, presented a paper on "Cancer of the Intestinal Tract."

These two papers were discussed by Dr. C. B. Lewis, St. Cloud, and in closing by Dr. Strachauer.

Dr. John E. Evert, St. Paul, presented a paper entitled "Tumors of the Thymus." Discussed by Dr. Moses Barron, Minneapolis.

As this completed the program for this session, the meeting was declared adjourned at 5:00 p. m.

## TUESDAY EVENING, APRIL 28, 1925

### THE ANNUAL BANQUET

The annual banquet was held at the Radisson Hotel, Minneapolis, at 6:30 p. m.

At the close of the dinner the following program was carried out, with Dr. William J. Mayo as Toastmaster:

"Our Guests," Dr. Emil S. Geist, Minneapolis, President Hennepin County Society.

"Welcome," George E. Leach, Minneapolis, Mayor of Minneapolis.

Solos, Mrs. Mildred Langtry Mehlin, Warren.

"Minnesota," Theodore Christianson, St. Paul, Governor of Minnesota.

"The State Society," Dr. W. L. Burnap, Fergus Falls, President State Society.

"Experiences with the Legislature," Herman M. Johnson, Dawson.

"The Medical College," Dean E. P. Lyon, Minneapolis.

"Medical Practice Today," Dr. Frank Billings, Chicago.

"The American Medical Association and the Future of Medicine," Dr. William D. Haggard, Nashville, President American Medical Association.

## WEDNESDAY MORNING, APRIL 29, 1925

### JOINT SESSION, MEDICAL AND SURGICAL

The second joint session was called to order in the Auditorium of the Engineering Building, University of Minnesota, at 8:10 a. m., by the Chairman, Dr. L. G. Rowntree, Rochester.

#### 1. Diabetes Mellitus:

(a) Clinical Demonstration—Dr. A. H. Beard, Minneapolis, discussed the Arteriosclerotic Conditions of Diabetes, and presented a group of patients.

(b) Surgery in the Diabetic was discussed by Dr. A. A. Law, Minneapolis.

#### 2. Diseases of the Thyroid:

(a) Clinical Demonstration—Dr. Henry S. Plummer, Rochester, spoke of the great advances made in the knowledge of these diseases and presented a group of patients.

(b) Surgical Considerations—Dr. J. DeJ. Pemberton, Rochester, discussed the surgical possibilities and presented a series of patients and lantern slides.

#### 3. Diseases of the Other Glands of Internal Secretion:

This subject was presented by Dr. H. L. Ulrich, Minneapolis, and at the close of his address the chairman requested Dr. Frank Billings, Chicago, to continue the discussion. Dr. Rowntree then made the closing remarks, at the request of Dr. Ulrich.

At this point the clinical session was interrupted for the Installation of Officers.

#### 4. Clinic on Neurology:

(a) Dr. A. S. Hamilton, Minneapolis, discussed "Nervous Disorders in Pernicious Anemia," and presented a group of patients.

(b) Dr. J. C. McKinley, Minneapolis, discussed "Early Tabes Dorsalis," and presented a series of patients.

These two presentations were discussed by Dr. Frank Billings, Chicago.

(c) Dr. E. M. Hammes, Saint Paul, spoke of "The Sequela of Encephalitis," and presented a group of patients.

(d) As Dr. A. W. Adson, Rochester, was unable to be present the topic of "Surgery in Spinal Cord Tumors" was not discussed.

(e) Dr. Smiley Blanton, Minneapolis, discussed the various types of "Speech Defects," and presented a group of patients.

As this concluded the program for this session, on motion duly seconded and carried the Association adjourned to meet in separate sections at 2:00 p. m.

A short general session at which Dr. Burnap presided was held at 10:45 a. m.

After some preliminary remarks the attention of the members was called to the fact that Dr. Sidney S. Hall, formerly of Ripon, Wisconsin, and a member of the Wisconsin State Medical Association since its inception, at one time president of the association and for thirty-five years its treasurer, is now living in Minneapolis. Dr. Hall, being present, was called upon and duly elected an honorary member of the Minnesota State Medical Association.

Dr. H. M. Johnson, president elect, was then escorted by Dr. Theodore Bratrud and Dr. C. B. Wright to the platform and duly installed.

## WEDNESDAY AFTERNOON, APRIL 29, 1925

### MEDICAL SECTION

Chairman, Dr. L. G. Rowntree, Rochester; Secretary, Dr. F. J. Hirschboeck, Duluth.

The second meeting of the Medical Section was held Wednesday afternoon at 2 p. m. in Room 104 Anatomy Building.

Dr. O. E. Locken, Crookston, spoke on "Public Health—A Challenge to the Medical Profession," which was discussed by Dr. F. R. Weiser, Windom, and Dr. A. J. Chesley, Minneapolis, Dr. Locken closing.

Dr. Woodard Colby, St. Paul, discussed "The Dick Test, Immunization of Scarlet Fever," which was commented upon by Dr. E. S. Platou, Minneapolis; Dr. E. J. Huenekens, Minneapolis; Dr. W. P. Larson, Minneapolis; and Dr. Colby in closing.

Dr. Harry Oerting, St. Paul, presented a paper on "The Use of Novasurol as a Diuretic." This was discussed by

Dr. N. M. Keith, Rochester; Dr. L. G. Rowntree, Rochester; Dr. Oerting, and Dr. Frank Billings, Chicago.

The chairman announced that St. Louis County has one hundred per cent membership and requested Dr. F. H. Magney, of Duluth, to tell how they did it.

Dr. Arthur Sweeney, St. Paul, discussed the "Psychology of Compensation Neurosis," on which Dr. A. S. Hamilton, Minneapolis, and Dr. W. H. Hengstler, St. Paul, commented; Dr. Sweeney closing.

Dr. Paul G. Boman, Duluth, spoke on "Postoperative Pulmonary Complications." The subject was further discussed by Dr. H. E. Richardson, St. Paul; Dr. N. M. Keith, Rochester; Dr. G. D. Head, Minneapolis; Dr. L. A. Nippert, Minneapolis; Dr. Mary S. Whetstone, Minneapolis; and Dr. Boman.

Dr. H. I. Lillie, Rochester, presented a paper on "Effect of Environment upon the Upper Respiratory Tract and Clinical Significance," which was discussed by Dr. J. A. Pratt, Minneapolis; Dr. Horace Newhart, Minneapolis; and Dr. Lillie in closing.

Dr. F. L. Adair, Minneapolis, gave an illustrated talk on "Causes of Death in the Fetus and Newborn; Based on 450 Necropsies." Dr. W. A. O'Brien, University of Minnesota, performed an illustrative autopsy on a fetus; and Dr. Roger Kennedy, Rochester, further discussed the subject.

Adjournment.

#### WEDNESDAY AFTERNOON, APRIL 29, 1925

##### SURGICAL SECTION

The second session of the Section on Surgery was held in the Auditorium Anatomy Building, University of Minnesota, and was called to order at 2:00 p. m., by the Chairman, Dr. Harry P. Ritchie, St. Paul.

Dr. F. C. Schuldt, St. Paul, presented a paper entitled "Tumors of the Testes—Malignant and Inflammatory" ( lantern slides). Discussed by Drs. E. T. Bell, Minneapolis; Gilbert Thomas, Minneapolis; and in closing by Dr. Schuldt.

Dr. Theodor Bratrud, Warren, presented a paper on "The Treatment of Acute Appendicitis." Discussed by Drs. Donald K. Bacon, St. Paul; Frederick J. Plondke, St. Paul; and in closing by Dr. Bratrud.

Dr. J. S. Holbrook, Mankato, presented a paper entitled "Perforated Gastric and Duodenal Ulcer." Discussed by Drs. James E. Arnold, Vernon Center; W. A. Coventry, Duluth; H. B. Sweetser, Minneapolis; Frederick A. Olson, Minneapolis; C. B. Wright, Minneapolis; A. E. Benjamin, Minneapolis; and in closing by Dr. Holbrook.

Dr. F. C. Mann, Rochester, presented a paper entitled "Production and Healing of Peptic Ulcer; Experimental Study." Discussed by Dr. E. T. Bell, Minneapolis.

Dr. Archa Wilcox, Minneapolis, presented a paper entitled "Splenectomy for Hemolytic Jaundice, with Report of a Case." Discussed by Drs. Arthur W. Collins, Duluth; and H. M. Conner, Rochester.

Dr. T. L. Chapman, Duluth, presented a paper on "The Lowering of the Mortality in Toxic Adenoma of the Thyroid." Discussed by Dr. Henry S. Plummer, Rochester.

Dr. Wallace Cole, St. Paul, presented a paper entitled "Clinical and Roentgenologic Differentiation of some Apparently Similar Bone Lesions." Discussed by Dr. Charles A. Reed, Minneapolis.

As this completed the program, the chairman expressed his thanks to the Secretary of the Section, Dr. O. J. Hagen, for his valuable assistance, and the meeting was declared adjourned at 5:25 *sine die*.